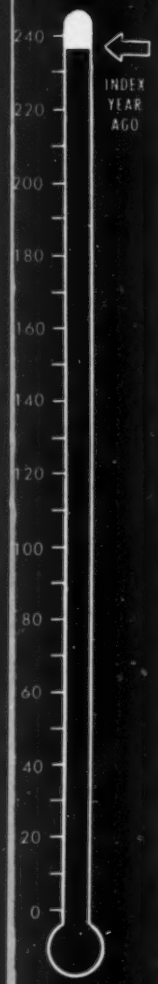
BUSINESS WEEK

Russian Industry
GROWING . . . AT A PRICE
PAGE 137



Patterson of American Machine & Foundry: **Closer to the customer** (page 60)

A McGRAW-HILL PUBLICATION

MAR. 1, 1952

QUALITY BEARINGS

step up performance of rugged earth movers!

It's difficult to find a type of equipment that takes more wear and tear than today's giant earth movers! And that means that each part—*especially the bearings*—have to stand endless daily punishment. Because they are built to such high quality standards, Bower Spher-O-Honed bearings are used extensively by leading manufacturers of earth moving equipment. Precise, honed races, generous oil groove and spherical roll heads and flange surface are only a few of the advanced Bower features which add to bearing life and minimize breakdowns. Whatever your product—from earth movers to electric motors—it will pay you to standardize on Bower Spher-O-Honed bearings!

THE BOWER ROLLER BEARING COMPANY
Detroit 14, Michigan

BOWER

SPHER-O-HONED

ROLLER BEARINGS

"Vision is Indispensable to Progress"

How sunshine stored a billion years ago cooks your bacon and eggs today

More than twelve million housewives now cook with natural gas—a fuel formed by decomposition of plants and organisms that fed on water and sunshine a billion years ago.

"Burning springs"—natural gas—were known in America as early as 1775. But for more than a century, use of this stored sunshine was confined largely to those localities in which it was found. Then came a great new industry.

Men with capital and vision enlisted the services of the geophysicist and the know-how of makers of steel, pipe, pumps, valves. They drilled wells, laid pipe lines, built compressor stations, provided huge underground storage in sandbeds and depleted oil and gas fields.

Today, from areas totaling less than 1% of the U. S., natural gas flows through a 3-billion dollar, 325,000-mile pipeline network, serves 2 out of every 5 homes and over one-and-a-quarter million commercial and industrial establishments. It constitutes four-fifths of the nation's entire gas supply.

Natural gas pasteurizes milk, melts pig iron, fires brick and cement, heats water, bakes bread, speeds the flow of defense materials.

This development of a prime source of energy, from a product that once went to waste, is typical of what free men, teaming up under a system of private business management, are doing to improve an already high standard of living.

BANKERS TRUST COMPANY

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MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

Whatever you make, we can help

Our booklet tells more than this ad

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- ☐ "Batch Charging Systems"
- ☐ "Lehr Loaders"
- ☐ "Annealing and Decorating Lehrs"
- ☐ "Glass Making Equipment and Services"

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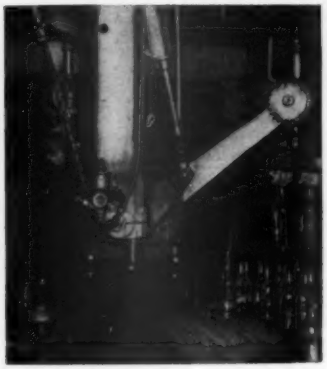
CITY & STATE_____



SOMETHING HOT TO MOVE?

H-E Lehr Loaders might solve your problem. Glass industry uses them to load "hot" bottles gently onto an annealing or decorating lehr. They are part of many machines developed by Hartford-Empire. This division brings to the Emhart pool of scientific and engineering resources 40 years' experience in developing and manufacturing glass-making equipment.

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HIGH SPEED CARTON PACKING

High Speed Carton Packing with Standard-Knapp equipment is automatic, precise and economical. Cartons are assembled into required load pattern, then packed automatically—without damage—into shipping cases. Range of application: from foods to soaps and detergents, from cigarettes to tissue rolls. Carton-packers are one of the many types of S-K machines used in modern packaging lines.

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EMHART MFG. CO.

Only the best is good enough

YOUR PRODUCT NEED BOUNCE?

Perhaps your product can use the packaging convenience of a bottle that can be squashed, frozen, squeezed and bounced — but not smashed. You may have a product still in your lab that has never been put on the market because seemingly it couldn't be packaged properly. Plax may have the answer in the Plaxpak® bottle or its other unique plastics products.

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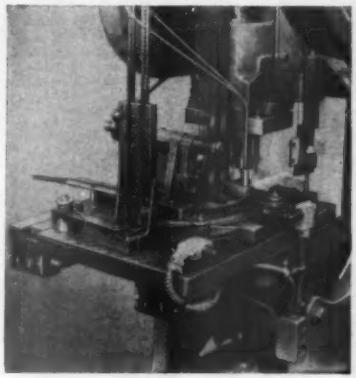

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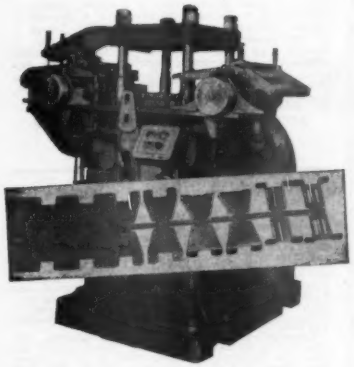

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If your metal stampings have to hop, skip and jump from one press to another before being completed, a lot of time and energy is being wasted. Progressive dieing on a single Henry & Wright Dieing Machine will give you the production you want. As many as nineteen operations are being performed with each stroke of Henry & Wright machines.

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OUR BOOKLET, "HOW EMHART CAN HELP" is available from any of the member companies. It demonstrates the design, development, and production skills here—clearly shows the unique combination of experience and know-how that you can put to use, no matter what you make.

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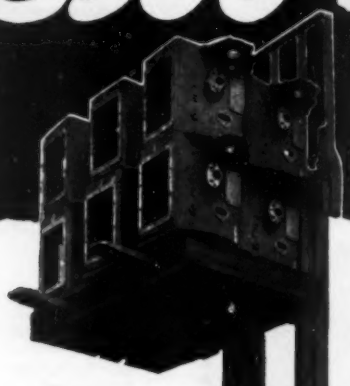
MOBILIFT 3500 Pounder

Lev-R-Matic DRIVE

Fork Lift Truck



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This is the Stand-Up Model "H-W" that MOBILIFT engineers developed to meet specific needs in all types of industry to help speed production and cut handling costs!

Not a single maneuverability feature or MOBILIFT advantage found in smaller models has been sacrificed in this new versatile "H-W" 3,500-lb or "H" 3,000-lb capacity truck.

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Stand-Up Model "H-W" 3,500-lb cap on 15" load center. Mast ht 83" (Free Lift 36"; lift ht 108"; mast ht. extended 136") Outside turning radius 63 7/8", inside turning radius ZERO

Illustrated.
Model "H-W" with 83" Mast.
Also available with Standard 63" Mast

Model "H" 3,000-lb cap. available with 63" and 83" Masts

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for complete specifications on the new "H" series and other MOBILIFTS.

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"Good Place to Work"

Telephone people know from their experience over many years that the telephone company is "a good place to work."

Wages are good, with regular, progression raises. There is a complete Benefit and Pension Plan with all costs paid by the company.

The work is interesting, with many opportunities for advancement. Last year, for instance, more than 45,000 Bell Telephone men and women were promoted to higher jobs.

Telephone people have found respect and opportunity in the business. They've found pleasant associates and fair play; significantly, about one out of every four new employees is recommended by a present employee.

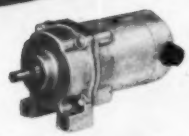
BELL TELEPHONE SYSTEM

IMPROVED PRODUCT PERFORMANCE . . . .

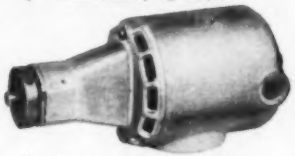
Lamb Electric

SPECIAL APPLICATION FRACTIONAL HORSEPOWER **MOTORS**

...an end result of special engineering



Pocket-size gear motor for machine applications requiring low output shaft speeds with relatively high torque.



Universal motor with shaft carried on double row ball bearings; developed for use as a high-speed grinder.

Electrically governed, precision-built motor with accurate speed adjustment. Ideal for instrument use.

• A Lamb Electric Motor contributes importantly to the good performance of a product by providing the exact mechanical and electrical requirements for the particular application.

Other benefits frequently gained by the use of a Lamb Electric motor — because it is *specially engineered* for the product — are, reduced product weight, compactness, improved appearance and lower cost.

Our experience in designing and building motors for many thousand applications is available to help you obtain these results.

The Lamb Electric Company
Kent, Ohio

THEY'RE POWERING AMERICA'S Finest PRODUCTS

Lamb Electric

SPECIAL APPLICATION FRACTIONAL HORSEPOWER **MOTORS**

In BUSINESS this WEEK . . .

• Battling for TV . . .

. . . time for election coverage, the icebox crowd is caught up in the struggle that keeps television stations and advertisers in a state of continuing frenzy. P. 20

• Rising Slightly . . .

. . . but only slightly, the Business Week Regional Income Indexes reflect the comparative stability in the nation's economy. P. 44

• Pushing Hard . . .

. . . to get U. S. Steel's new Morrisville mill operating, Albert Berdis is a big man with a big job. Here's Berdis' story. P. 55

• Climbing Slowly . . .

. . . salaries of management men aren't keeping pace with living costs and taxes. A new survey sheds light on one of industry's most important problems. P. 102

• Digging In . . .

. . . left-wing unions have hung onto their franchises. Now come new moves—both in Congress and in industry—to pressure the Communist followers. P. 124

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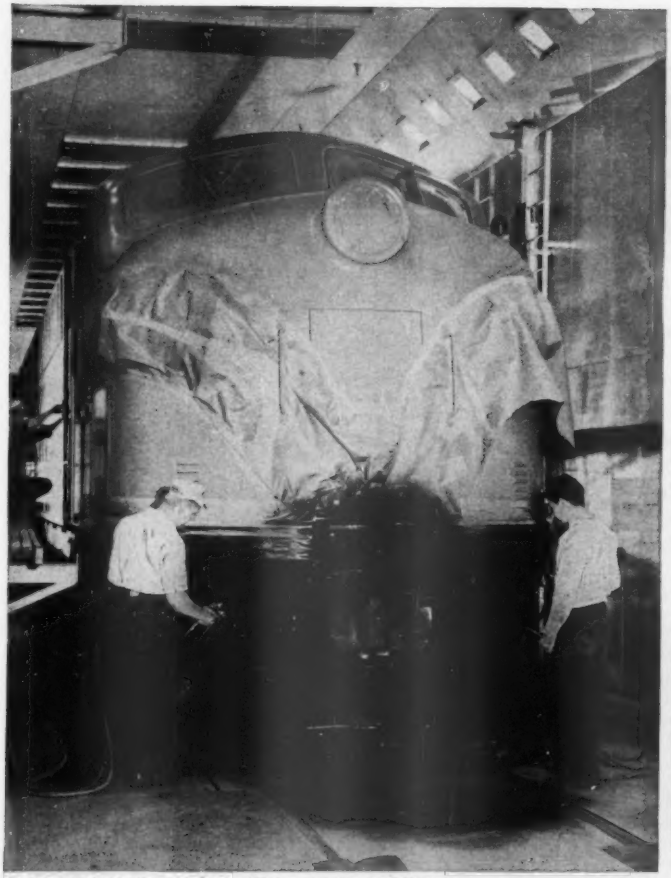
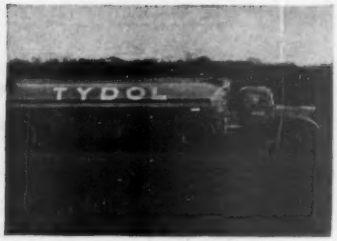
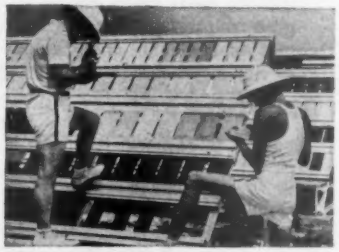
FINISHING



STREAMLINED FINISH With quick-drying DUCO lacquer top coats, this giant Diesel is finished in many different colors in one day.



LASTING GOOD LOOKS of DULUX finishes for trucks means less "down time," lower maintenance costs.



ON "PAINT FARMS" Du Pont chemists expose test finishes to severe weather, often for years.

DU PONT FINISH makes sewing machine a handsome piece of furniture, ups sales appeal.

85% of leading U.S. railroads use Du Pont finishes

Railroad men know that it's good public relations to keep passenger trains smartly finished at all times. That's one reason why 85% of America's leading railroads use Du Pont Railroad Finishes on passenger-train equipment.

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Chemically engineered to do the job better.

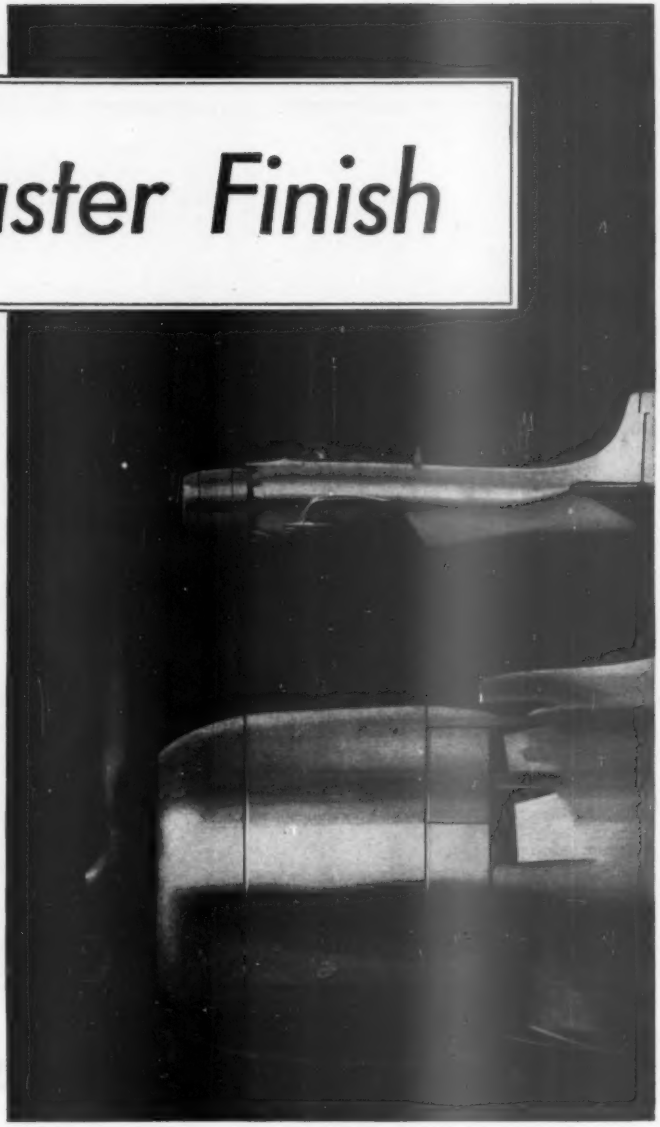
DUPONT

150th Anniversary

BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

DUCO AND DULUX ARE REG. U. S. PAT. OFF.

No Faster Finish



PROBLEM . . .

. . . finishes for aircraft and other military needs which can be applied fast, dry fast without baking, and stand up under severe service conditions.

SOLUTION . . .

. . . hot-spray lacquers now made by many companies from Hercules nitrocellulose. These new lacquers, thinned by heat rather than solvents, permit more actual lacquer to pass through the spray gun. Now, one hot coat frequently does the job where two coats had been used.

RESULT . . .

. . . faster production, and a better, longer-lasting finish. Important savings also are effected in materials as well as time. Douglas Aircraft Company, for example, reports finishing time reduced by 50% on AD-4 Navy planes . . . 2 gallons of lacquer and 8 gallons of thinner saved per plane. Adoption by the Military of hot-spray lacquer for ammunition, aircraft, tanks, buses, and other items acknowledges these benefits. *Write for information.*

Hercules' business is solving problems by chemistry for industry . . .

. . . insecticides, adhesives, soaps, detergents, plastics, paint, varnish, lacquer, textiles, paper, rubber, to name a few, use Hercules® synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products, and other chemical processing materials. Hercules® explosives serve mining, quarrying, construction, seismograph projects everywhere.

HERCULES

HERCULES POWDER COMPANY 968 *Market St., Wilmington 99, Del.*
Sales Offices in Principal Cities

BUSINESS OUTLOOK

BUSINESS WEEK
MARCH 1, 1952

A BUSINESS WEEK SERVICE

Business in depressed consumer lines hasn't hit bottom yet, but the leveling-off point isn't too far away.

This is a fairly typical inventory jolt. In the late phases of such a shakeout, everyone buys overcautiously. The turnaround, when it comes, always is more of a surprise than would seem justified by hindsight.

•

Store sales are good by any standard except comparison with the unnatural highs a year ago.

Even more important to manufacturers, store inventories are down to reasonable levels. As far back as December stocks were only 1.7 times sales. In critical lines, the ratio was even better.

In womenswear, with sales matching a year ago, stocks were down 3%. In radio-TV, sales were off only 9%—and stocks lower by 39%.

•

Supplies of everything begin to look too big when businessmen are worried over the size of their own inventories.

That helps account for the sudden appearance of a lot of metal.

Then, too, metal supplies never were so bad as they looked. A good bit of stuff had been squirreled away. If not, how could copper consumers have used something like 130,000 tons in January?

Finally, jitters abroad have opened the way for more imports here.

•

Purchasing agents confirm the fact that the turn hasn't come yet.

They note that the slide in orders and backlogs continued in February. And they were still declining as fast as in December and January.

Yet the National Assn. of Purchasing Agents reports inventories "lower and better adjusted to current requirements."

Still more members have cut buying to 90 days' needs or less.

•

First-quarter earnings reports in many lines will make poor reading.

Inventory losses will show up in some cases, even where sales volume has been pretty well maintained.

Overhead, in industries where volume has fallen sharply, will have to be charged against the lower number of units produced.

•

Employment and purchasing power are kept high only by the abnormality of a heavy-industry boom in the midst of a consumer goods slump.

Labor, nevertheless, is bound to suffer in spots. February unemployment almost surely will be higher than January's 2,054,000. And a lot of those still on their jobs are working shorter hours.

Even in January the work week was short, notably in lines such as leather, textiles, chemicals, apparel, paper, and glass.

But in arms and associated lines, the work week still was 42 hours.

•

Conditions in textiles can't get much worse. Prices, short shifts, mill closings, inventories, and wage wrangles fill the cup of woe.

A leading woolen manufacturer and a top brand-name hosiery producer have omitted the common dividends within the last few days.

Cotton goods prices now are a shade lower than they were last summer—with the raw materials 5¢ to 6¢ a lb. higher.

High operating costs and relatively slim profit margins are harassing department store managements. For example: R. H. Macy & Co. on Wednesday cut the quarterly dividend to 50¢ from 60¢.

•

Basic business indicators show little sign of any letdown.

Steel operations this week are scheduled at 100.9% of rated capacity. That's equivalent to 2,096,000 tons for the week (just short of the December high of 2,097,000).

Electric power output last week widened its gain over a year ago to 9.2%. (At the end of January the margin had fallen to 6.7%.) New England is the weak sister with a gain of only 3.9% over last year.

•

Helping meet foreign bread needs continues a big job for the American farmer, but demand for coarse grains is down.

Exports of wheat (and wheat in the form of flour) amounted to 263-million bu. in the six months ended with January, almost double the same period a year ago. Over 40% of the total went to Europe.

Shipments of coarse grains, however, dipped to 105-million bu., against 126-million in the first half of the previous crop year.

Boosting wheat sales: (1) Argentina's yield is very short, and (2) much of Canada's big crop had to be left in the field when winter closed in.

•

Britain continues to be our best customer for tobacco.

The United Kingdom took 221-million lb. of unmanufactured tobacco exports last year—43% of U. S. shipments.

Last year's total shipments of 521-million lb. were the largest since 1946's record of 663-million and amounted to about a quarter of recent annual average production.

•

Foreign demand for cotton is helping to eliminate any possible burdensome surplus in this country—and to bolster prices.

Exports through January, first half of the crop year, apparently exceeded 3½-million bales. December alone accounted for 980,000 bales, the largest monthly figure since January, 1940, with 1,035,000.

Thus another big cotton export year is assured—even though the textile slump abroad may reduce the rate of shipments from now on.

Use at home still promises to hit 9-million bales, so there won't be any trouble using most of last year's 15-million-bale crop.

•

Burlap interests are out to recapture their old market for bagging.

Price gives them their chance. As recently as last December, burlap sold at 28¢ a yd.; now it has drifted down to about 20¢.

On top of that, India has just halved the tax it levies on exports.

•

Tire manufacturers face an improving market as the auto makers boost output after the January lag.

Beyond that, they are looking for a pickup in replacement sales. Motorists are wearing out a lot of tires bought in the big rush in mid-1950 and the smaller splurge over the 1950-51 yearend.

By 1952's second half, the Rubber Manufacturers Assn.'s economists figure replacement sales can be two-thirds above the same 1951 period.

Contents copyrighted under the general copyright on the Mar. 1, 1952, Issue—Business Week, 330 W. 42nd St., New York, N. Y.

Coming from a child's toy... "tracks" across sea and sky

Chances are when you were younger, you put a gyroscope top through its paces and marvelled as it balanced perfectly at crazy angles on a string . . . the lip of a glass . . . or a pointed object.

Today this top performs its tricks to strengthen the Nation's defenses.

In any weather . . . day or night . . . the gyroscope acts as a super-reliable pilot to hold ships and planes on predetermined courses . . . keeps guided missiles and torpedoes on their right paths—in truth, does a track-laying job across sea and sky.

The gyro's ability to resist forces seeking to change the course of the ship, plane or missile it is controlling, stems from its whirling rotor ring. The greater the speed and weight of that ring, the greater the stability of a gyro.

To cram as much rotor weight as possible into the limited space in military gyro equipment, manufacturers use Mallory 1000 Metal, a remarkable, man-made metal with great strength and weight, easy machinability and reasonable cost which make it invaluable in such diverse applications as radium shields and counter-balance weights.

Heavier than lead—Mallory 1000 is a product of unique powder metallurgy techniques developed by Mallory—techniques that produce new materials with the diverse characteristics of basic metals that cannot be alloyed by ordinary methods.

Development and production of metals such as Mallory 1000 is just one phase of Mallory's diversified activity in the fields of metallurgy, electrochemistry and electronics.

If, as a manufacturer, your products or processes touch the fields of Mallory activities, it may pay you to contact us. Many manufacturers have found Mallory products and services offer real opportunity for bettering their products . . . lowering their costs.

P. R. MALLORY & CO. Inc.

MALLORY

SERVING INDUSTRY WITH THESE PRODUCTS

Electromechanical • *Resistors, Switches, Television Tuners, Vibrators*

Electrochemical • *Capacitors, Rectifiers, Mercury Dry Batteries*

Metallurgical • *Contacts, Special Metals and Ceramics, Welding Materials*

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA

R/M Brake Blocks Tame Monster Loads

Brake blocks, the parts that do the "stopping" in heavy-duty brakes, are put to the supreme test as huge trucks haul multi-ton loads of timber down steep mountain logging roads. So tough is the braking problem that often the brakes have to be cooled with a steady stream of water to keep from turning red hot. In no other service are brake blocks put to such punishment. Raybestos-Manhattan brake blocks are in widespread use for this important service—finest proof of their value under any conditions.

It is product engineering like this that has made R/M the leading supplier of brake lining for every type of vehicle—heavy trucks, light trucks, buses and passenger cars. Yet this is just one example of Raybestos-Manhattan versatility. Almost every industry, indeed almost every individual, is served by something R/M makes in its six great plants and laboratories . . . If you have a problem involving asbestos or rubber, consult an R/M representative. Raybestos-Manhattan, Inc., Passaic, N.J.

RAYBESTOS-MANHATTAN, INC.

Raybestos ... *Condor* · MANHATTAN ... Grey-Rock

Manhattan Rubber Division, Passaic, N.J.
Raybestos Division, Bridgeport, Conn.
U.S. Asbestos . . . Grey-Rock Division, Manheim, Pa.

General Asbestos & Rubber Division, No. Charleston, S.C.
Wabash Division, Crawfordsville, Ind.
Canadian Raybestos Company Ltd., Peterborough, Ont.

Brake Blocks, Linings and Clutch Facings

Fan Belts and Radiator Hose

Industrial Packings and Gaskets

Industrial Drive Belts

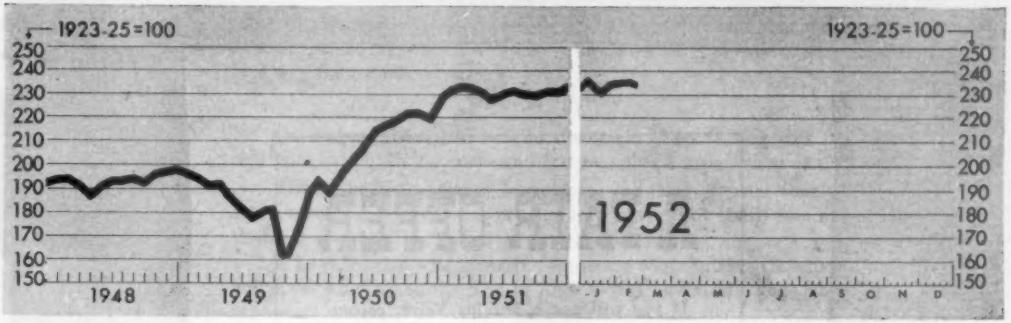
Conveyor Belts

Industrial and Automotive Hose

Other R/M products include: Asbestos Textiles • Sintered Metal Parts • Abrasive Wheels • Bowling Balls • Rubber Covered Equipment • Other Industrial Rubber

SPECIALISTS IN ASBESTOS, RUBBER, AND SINTERED METAL PRODUCTS

FIGURES OF THE WEEK



	§ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Business Week Index (above)	*236.1	†236.4	235.7	237.1	173.1
PRODUCTION					
Steel ingot production (thousands of tons)	2,096	2,090	2,079	1,995	1,281
Production of automobiles and trucks	109,439	†111,821	94,722	199,267	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	$34,280	$34,801	$43,819	$60,350	$17,083
Electric power output (millions kilowatt-hours)	7,461	7,440	7,616	6,833	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,366	6,356	6,194	5,945	4,751
Bituminous coal production (daily average, thousands of tons)	1,750	1,764	1,888	1,781	1,745
TRADE					
Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	76	75	74	76	82
Carloadings: all other (daily av., thousands of cars)	47	48	51	47	53
Department store sales (change from same week of preceding year)	-6%	-8%	-14%	+18%	+30%
Business failures (Dun and Bradstreet, number)	177	125	142	127	217
PRICES					
Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	433.9	436.7	456.3	528.6	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100)	296.7	300.3	312.4	379.2	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100)	339.9	343.4	355.5	414.4	274.7
Finished steel composite (Iron Age, lb.)	4.131¢	4.131¢	4.131¢	4.131¢	2.686¢
Scrap steel composite (Iron Age, ton)	$42.00	$42.00	$42.00	$43.00	$20.27
Copper (electrolytic, Connecticut Valley: lb.)	24.500¢	24.500¢	24.500¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.50	$2.49	$2.52	$2.45	$1.97
Cotton, daily price (middling, ten designated markets, lb.)	40.19¢	39.77¢	41.65¢	#	30.56¢
Wool tops (Boston, lb.)	**	**	$2.20	$4.45	$1.51
FINANCE					
90 stocks, price index (Standard & Poor's)	184.4	187.6	194.7	173.7	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.53%	3.52%	3.55%	3.16%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	2¼%	2¼%	2¼%	2%	½-1%
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks	52,557	53,090	54,586	50,491	††45,210
Total loans and investments, reporting member banks	73,504	73,678	73,583	69,231	††71,147
Commercial and agricultural loans, reporting member banks	21,148	21,144	21,286	18,588	††19,221
U. S. gov't and guaranteed obligations held, reporting member banks	31,973	32,185	32,166	30,900	††49,200
Total federal reserve credit outstanding	23,887	23,753	24,116	23,283	23,883

MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Average
Cost of living (U. S. BLS, 1935-39 = 100) old basis	January	190.2	190.0	181.6	139.3
Wholesale prices (U. S. BLS, 1947-49 = 100)	January	113.2	113.5	115.0	78.7
Retail sales (seasonally adjusted, in millions)	January	$12,565	$12,318	$13,593	$8,541

* *Preliminary, week ended Feb. 23.* †† *Estimate (BW—Jul.12'47,p16).* # *Markets closed.* ** *Not available.* † *Revised.* § *Date for "Latest Week" on each series on request*

A FAIR OFFER

If you will put a Jenkins Valve, recommended for your particular service, on the worst place you can find — where you cannot keep other valves tight — and if it is not perfectly tight or it does not hold steam, oil, acids, water or other fluids longer than any other valve, you may return it and your money will be refunded.

Jenkins Bros

A FAIR OFFER THAT HAS BEEN IN EFFECT SINCE 1869

JENKINS VALVES

LOOK FOR THE DIAMOND MARK

SINCE 1864 JENKINS

Jenkins Bros

This famous "Fair Offer" has been published at frequent intervals for the past 83 years. It can be repeated, again and again, only because all Jenkins Valves measure up to its sincere pledge of exceptional dependability.

Despite their *extra value*, proved by countless economy records in every type of service, *you pay no more* for Jenkins Valves. Jenkins Bros., 100 Park Ave., New York 17.

WASHINGTON OUTLOOK

WASHINGTON BUREAU
MAR. 1, 1952

A BUSINESS WEEK SERVICE

Give Phil Murray about 20¢ and Ben Fairless around $3. That's the steel wage-price settlement Truman's stabilizers want. It was settled on behind closed doors this week—and with it the stabilizers discussed strategy for putting it across.

•

On wages, about 20¢ will do the trick. The feeling was that Murray will take this in living costs and fringes, plus a union-shop deal.

Then, the talk turned to prices. Industry figures that $6 or more a ton would be needed to cover 20¢ in wages. But there was opposition to that.

A $3 price rise was favored. Figuring was that the Capehart provision will cover that amount. The balance would have to be "absorbed."

•

Strategy being talked is this: Grant the price rise ahead of the wage rise. Then, if the steel industry should want to balk at paying a wage boost, it would be in a tough spot to convince the public that a second price rise was needed. All this shows how the Administration is trying to confuse the price consequences of its liberal policy on wages.

•

The pressure on Truman is terrific. He's being pulled and hauled by three groups within the party, all with different motives.

There are the anti-Truman Democrats who are dead set against him, so warn of defeat if he runs. They are mostly Southerners.

There are friends who advise against a race for reasons such as health, family, and record. Chief Justice Vinson is said to be among these.

Then, there are the partisans who tell Truman he must run out of party loyalty and patriotism. They argue that only he can win for the Democrats and that, if he fails to run, Taft will be elected and will wreck the foundations Truman has laid for world peace.

You will get Truman's decision shortly, perhaps within 30 days. Visitors during the Key West rest in March will be mostly politicians, and mostly men who argue that Truman must run.

•

Relaxation of consumer credit terms is being urged by labor unions. They argue that down payment and installment terms are hurting sales of autos, appliances, other products, and may increase unemployment.

An attack on the reserve board's general credit power will be made when the joint economic committee starts hearings on money and credit (page 26). Chairman of the money and credit subcommittee is Rep. Patman (D., Tex.), long-standing advocate of plentiful and cheap credit. He would put the reserve system under domination of the Treasury. But Congress won't buy it. The inflationary dangers of it are too great.

•

The aluminum expansion now planned is enough. Wilson has about decided that. It reverses earlier thinking among the mobilizers, but it's based on new estimates of military needs through mid-1955.

The final decision is due within a week. Wilson is calling in light metals producers to canvass the outlook on aluminum and copper. But it's a pretty good bet that from now on only copper will get help on expanding production. Aluminum will have to stand on its own.

WASHINGTON BUREAU MAR. 1, 1952

Contract renegotiation: If your fiscal year ended before Jan. 1, you must file your financial statement by next May 1—which has been set as the new deadline.

Contract termination: The settlement policy now has been determined. Terminations will be faster, with post-audits only where there is suspicion of fraud (page 120). You can get a copy of the rule by writing the Government Printing Office, Washington 25, D. C. Ask for Section VIII, Armed Services Procurement Regulations. The per copy price is 50 cents.

•

There's too much politics in defense. That's a shocking accusation, but it's being made by military men. They don't put it so bluntly as that. To do so would invite the wrath of their civilian bosses. But there's no escaping the implications in complaints they are making against policies that now are guiding the rearmament effort. Here they are:

•

The defense stretchout is complaint No. 1. That's Truman's decision to build arms more slowly than the military strategists consider is necessary at this time.

The military position is that Russia today is as dangerous as ever, and that the theory that the war threat is diminishing is only a guess. That was the thinking behind the Joint Chiefs of Staff's request for a 1953 fiscal budget of $71-billion, which Truman cut to some $52-billion. The military men will tell you privately that this was an economic cut, the implication being that civilian comfort is the justification.

•

Arms orders to combat unemployment are next. That's the policy of giving areas with high unemployment the first shot at contracts.

The services don't like this. With a budget cut, they want to buy where they can get the most in end products—weapons—for their money. In many instances, they can't do this and cater to distressed areas. So procurement men mutter about a WPA system of arms ordering.

•

Then, there's base broadening. When the arms buildup started out, a key policy was to spread contracts, thus spread arms output knowhow. That way, a switch to all-out war production would be faster.

The services don't like this now, although they did at the start. Like letting orders in distressed areas, it scatters contracts around, instead of putting them where arms can be had quickest and cheapest. The military says it can't afford this with an economy budget.

•

Keep an eye on this controversy. It's more than the usual rowing of Washington. It goes to the question of how fast defense is to be produced—the biggest single factor in the whole economy.

Developments may favor the military. It would take a war scare, a serious one, to restore fully the arms cut. But continued softness in business might persuade Truman and his advisers to give defense a bigger share of the cake. There's uneasiness about the present trend. Wilson and Fleischmann have just received a confidential report from their materials experts that the current arms budget will mean that steel and aluminum can be decontrolled by January, 1953.

HOUSTON 14, TEXAS • P. O. Box 4289 • PHONE MU 8181

5 February 1952

The International Nickel Company, Inc.
67 Wall Street
New York 5, New York

Attention: Development & Research Division

Gentlemen:

An example of INCO Technical Assistance

Our company manufactures the Mission Centrifugal Pump for use in process industries where highly corrosive and abrasive conditions are encountered.

Simplicity in the design of this pump permits quick replacement of any component; it is readily produced of Nickel, Monel, stainless steels, nickel cast iron and Ni-Resist.

In efforts to lengthen the useful life of pumps operating under severe conditions, we constantly investigate and test new materials and manufacturing processes. As a result, we have been able continually to improve the operating performance of our product.

On several occasions we have been helped considerably by the recommendations of your technical field men in regard to corrosion-resistant materials for specific applications.

The experienced technical assistance received from members of your department over the past few years is greatly appreciated and we wish you would extend our thanks to all concerned.

Very truly yours,

MISSION MANUFACTURING COMPANY
Centrifugal Pump Division

Miller V. Sparks

Miller V. Sparks
Manager

MVS/mh

EMBLEM OF INCO SERVICE

At the present time, the bulk of the nickel produced is being diverted to defense. Through application to the appropriate authorities, nickel is obtainable for the production of engineering alloys for many end uses in defense and defense-supporting industries.

We shall continue to make available to industry technical data and service experience on alloys containing nickel, as dissemination of such information can help promote the intelligent utilization of critical materials.

THE INTERNATIONAL NICKEL COMPANY, INC. 67 WALL STREET NEW YORK 5, N.Y.

Good Crops in 1951

AGAIN BRING NEW WEALTH TO THE GREAT MIDWEST

In 1951, a year of good although not record crops, the Great Midwest maintained its century-old leadership as the No. 1 agricultural producer of the United States. As always, this supremacy was particularly impressive in the four rich farming states served by

THE MINNEAPOLIS & ST. LOUIS RAILWAY

Illinois, Iowa, Minnesota and South Dakota harvested 1,264,307,000 bushels or 42 per cent of the corn crop . . . 645,615,000 bushels or 50 per cent of the oats . . . 10,257,000 bushels or 48 per cent of the rye . . . 16,059,000 bushels or 48 per cent of the flaxseed . . . 146,788,000 bushels or 52 per cent of the soybeans . . . 23,104,000 tons or 21 per cent of the hay . . . and vast quantities of wheat, barley and other cash and feed crops.

In 1951, harvests of soybeans and hay were the second largest in the nation's history. All crops, though damaged somewhat by excessive moisture, were large and, with prices generally good, added new wealth to the farm prosperity of the Midwest; and new importance to the four M. & St. L. states as a great consuming market and an ideal location for progressive industries served by a transportation system second to none.

The **MINNEAPOLIS & ST. LOUIS** *Railway*

111 EAST FRANKLIN AVENUE, MINNEAPOLIS 4, MINNESOTA

FAST DEPENDABLE FREIGHT SERVICE

THE MINNEAPOLIS & ST. LOUIS RAILWAY CO. — THE PEORIA GATEWAY

BUSINESS WEEK

NUMBER 1174

MARCH 1, 1952

LAST YEAR U.S. mines produced these tonnages of these four crucial nonferrous metals:	BY 1955 the U.S. will be producing this much annually . . .	. . . for an increase of:
ALUMINUM..... 836,885 tons	1,456,885 tons	74.1%
COPPER..... 928,576 tons	1,153,576 tons	24.2%
LEAD..... 390,428 tons	426,428 tons	9.2%
ZINC..... 679,111 tons	909,111 tons	33.9%

Metals for a New Kind of World

In an economy up to its neck in expansion, nothing causes less excitement than the announcement of another expansion program. Last week was the exception.

Out of a meeting in New York City came the first solid inkling of a truly tremendous program. It involves the U.S. mining industry. It calls for the spending of more money than ever before in history to get minerals out of the ground.

Between 1952 and 1955, mining companies will pour more than $2-billion into expanding U.S. output alone. In some cases, they will double and more than double present production. They will fashion completely new concepts of minerals economics. And in the process they will edge the U.S. toward its long-sought goal—metals self-sufficiency.

Nothing has matched it in all the records of the metals industry.

• **Source**—The outlines of this spectacular program came to light last week at the annual meeting of the American Institute of Mining & Metallurgical Engineers at the Statler Hotel in New York City.

The source was a paper by J. K. Richardson, assistant general manager of Kennecott's Utah Copper Division and an industry authority. Richardson, working from government and industry sources, turned in a report that is probably the most detailed breakdown yet made of the mining industry's plans for tomorrow.

This is what Richardson sees. Overall, industry expansion by 1955 will have cost well over $2-billion. Partially broken down by major segments, this comes to: $385-million in iron and taconites; $250-million in copper and molybdenum; $150-million in lead and zinc; $820-million in light metals; $130-million in other metals and nonmetallics.

In terms of production, the figures are almost as impressive (table, above). By 1955 beneficiation of taconite and jasper (BW—Jan.26'52,p124) will be bringing in 15-million tons of iron ore; there was practically no ore produced from these low-grade sources last year. Output of molybdenum will climb 31-million lb., a jump of 81% over domestic production in 1951. Cobalt will increase 2,100 tons (448%), tungsten 600,000 units (167%), and sulfur 1.8-million tons (34%).

• **Base for Building**—Even to set these goals, the minerals industry has had to make two basic changes in its economic thinking:

(1) It has had to revamp its concept of what is, and what is not, a workable deposit. The unpleasant fact is that for many key metals expansion possibilities in high-grade deposits are extremely limited. New output today has to come from lower-grade deposits that a few years ago were considered plain uneconomic.

(2) It has had to look for—and get—government aid to back up some of this "uneconomic" expansion.

So far the U.S. has pretty much confined its help to four main sources: quick tax writeoffs, guaranteed market contracts, direct or guaranteed loans, and exploration contracts. Lately, it has turned to some direct subsidies for specific copper producers.

I. Metal by Metal

Here is a detailed look at the expansion programs now under way in the key nonferrous metals:

ALUMINUM. The mobilizers' domestic goal is about 1.5-million primary tons sometime during 1954. The capacity to meet this target is substantially under construction now. Although there has been some talk of another round of expansion, the Defense Production Administration is swinging to the view that in light of the military stretchout the present program will be enough (page 15).

Major additions to capacity will be: Alcoa 400,000 tons a year of alumina from Bauxite, Ark., 205,000 tons of aluminum from new plant in Wenatchee, Wash., and Rockdale, Tex., and additions to its Point Comfort (Tex.) plant. Kaiser will add 220,000 tons annually from new plant at New Orleans and additions at Spokane. Reynolds will bring in 120,000 tons. Anaconda linked with Harvey Machine Co., expects 72,000 tons a year out of Kalispell, Mont.

COPPER. Mobilizers have not released any official goal for 1955. But

they are taking all the expansion they can buy.

Right now industry plans point to about 1.2-million tons from domestic mines by 1955. This will still leave the U.S. leaning heavily on imports, probably in the neighborhood of 35% to 40% of needs, assuming continued growth.

For its part, the industry expects supplies to ease materially during the last half of this year. This will be the result of somewhat larger domestic production and a more "normal" level of imports. (Imports were down last year due to the fact that fabricators abroad could pay more than Office of Price Stabilization ceilings.)

At home, DMPA is already negotiating to pay over-the-ceiling prices where it thinks necessary to get out domestic production. Anaconda, for example, expects 30,000 tons a year from its Yerington mine in Lyon County, Nevada. DMPA has agreed to buy 128,000 tons at 25½¢ a lb.—1¢ above the domestic ceiling. A similar deal was closed this week with White Pines Copper Co. for development of ore in northern Michigan. White Pines had already had an RFC loan; it is the first time that DMPA was willing to throw in a purchase contract on top of government financing. It will do it again if it sees a chance of getting more copper.

Major additions to capacity will be: Anaconda's Greater Butte Project, which will start bringing in 6,000 tons of low-grade ore a day in 1952; Kennecott's Deep Ruth Project, which will add 8,000 tons of low-grade ore a day starting in 1954. Deep Ruth will cost approximately $14-million.

LEAD. The official goal—including imports—is 1,342,000 tons a year by 1955. The industry thinks that this is too high—that 1.1-million to 1.3-million will be enough to satisfy demand. Last year total supply ran to about 1.1-million tons.

By Richardson's figures, domestic production of lead will hit about 426,500 tons by 1955. However, the industry has been saying lately that total supply—again including imports—might run as high as 1.4-million tons by 1955, well above the official target. Probably more expansion is being thought about.

The major addition to capacity scheduled right now is St. Joseph Lead's Herculaneum project, which is slated to bring in 35,000 tons a year by 1954.

ZINC. The official 1955 goal is 1,320,000 tons from U.S. and foreign sources. Supply last year was 1,093,000. About 40,000 tons of added domestic capacity will come from expansion of existing mines; 190,000 tons is counted on from new sources. DPA has already given quick tax writeoffs or purchase contracts for 178,000 tons of this. It is sure it can fill in the rest.

Major projects are Calumet and Hecla at Shullsburg, Wis., and Pend Orielle, at Metaline Falls, Wash.

II. But Never Enough

How much closer will all this expansion bring us to self-sufficiency in metals? The answer is not much—unless you rule out continued growth in demand.

The thing to remember in looking at some of the spectacular figures—cobalt and tungsten, for instance—is that we started with very little. Any increase looks big. Even after the new sources come in, we will still have to rely heavily on overseas shipments.

In other metals—copper, for example—our dependence is less. But even here we will probably have to count on filling at least 10% to 15% of our needs from abroad—after the expansion. And this, only if domestic demand stays unchanged. If it grows, as normal, we're likely to go right on importing 35% to 40% of our needs.

Antitrusters Challenge Company Directorships

The antitrust division of the Dept. of Justice this week began lawing against interlocking directorates.

Targets are Sidney J. Weinberg, charged with holding directorships in Sears, Roebuck & Co. and B. F. Goodrich Co.; and . . .

John M. Hancock, who holds directorships in Kroger Co., Jewel Tea Co.; W. T. Grant Co., S. H. Kress & Co.; Sears, Roebuck & Co., and Bond Stores, Inc.

The antitrust division claims that Weinberg and Hancock hold directorships in competing firms and therefore violate Section 8 of the Clayton Amendment to the Sherman Antitrust Act.

• **Loopholes**—Actually, the Clayton Act's ban on interlocking directorates in competing corporations is so loosely worded that it has been almost impossible to enforce it. As a result, the antitrust division and the Federal Trade Commission have both resorted to publicity more than prosecution in trying to clamp down.

• **Out In the Open**—In this week's suits, the antitrusters are apparently announcing that they intend to go to the mat with two public figures who are willing to make a contest.

Weinberg recently did a stint in high public office as a top adviser to mobilizer Charles E. Wilson; Hancock was not long ago a high adviser to ex-boss Mike DiSalle in the Office of Price Stabilization.

FCC is ready to add more than 1,200 new stations to . . .

FROZEN TV pattern is giving everybody

How Hot Wil

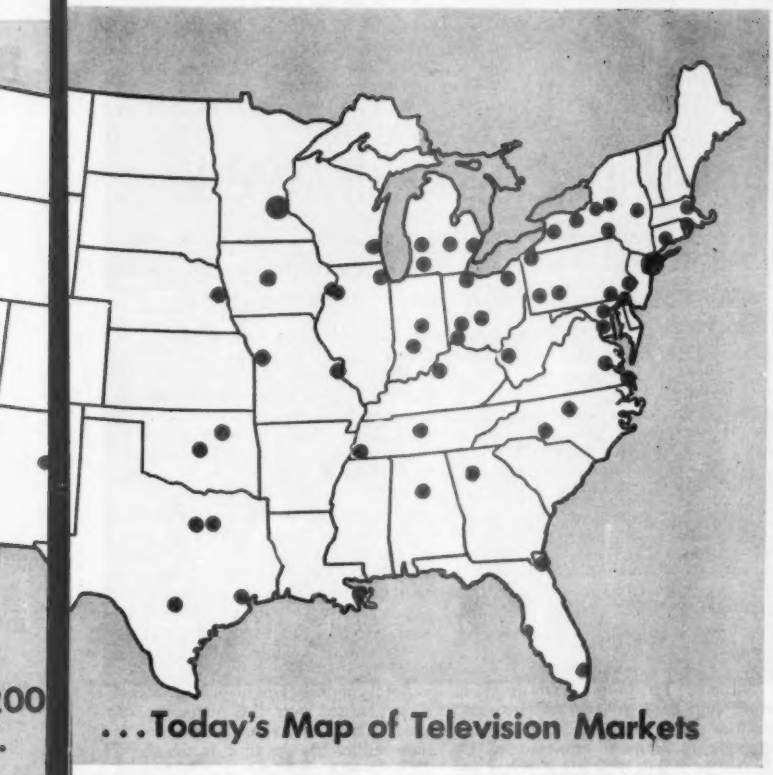
This week the "Battle of the Iceboxes" was roaring to its climax.

The "iceboxes," in television slang, are the three big appliance makers—Westinghouse, Philco, and Admiral—that will telecast the Presidential politics this year (BW—Feb.9'52,p21). The "battle" is the race to line up enough TV stations so that each member of the trio will have nationwide coverage.

I. High Blood Pressure

Unlike radio, TV is a medium so shy of stations that even under ordinary conditions it always has high blood pressure. Four national networks—American Broadcasting Co., Columbia Broadcasting System, DuMont, and National Broadcasting Co.—try to pump programs through an artery system in which 39 out of 64 major market areas have but a single station. Competition for those 39 is so furious that TV perpetually is on the verge of a stroke.

In the single-station areas, no network can really sew up an independent



...Today's Map of Television Markets

plenty of trouble. But with a thaw in sight, the industry wants to know . . .

t Get With the Freeze Off?

outlet for sure. The stations pick and choose what they want from the fare dished up by the four chains. Nothing is ever entirely solid. The stations often reserve the right to cancel a program after only a couple of weeks.

Political coverage—which means simultaneous coverage—will just about bring thrombosis on TV.

CBS has Westinghouse as client. NBC has Philco. ABC has Admiral. DuMont has no nationwide sponsor, but DuMont is in the spotlight nevertheless. For it owns the sole station in Pittsburgh, the home of Westinghouse. So in order to be sure of getting time on that one, Westinghouse has contracted for a four-station DuMont hookup, though that means some duplicate coverage with CBS.

• **Outcome Uncertain**—Nobody knows for sure just how the battle will turn out. Everybody is trying to woo stations from everybody else. There'll probably have to be plenty of compromises in the end, because:

(1) Although Sponsor A might succeed in freezing out Sponsor B in one place, B could reverse the trick elsewhere. So some sharing of the facilities is in the cards.

(2) Station owners don't like to antagonize big, powerful advertisers—which they would be doing by making exclusive deals. Mostly they favor time-sharing. That goes for cable, too, in areas where a single piece of coaxial wire is the only thing available.

II. Causes and Cures

Today's TV mess is the result of the Federal Communications Commission's long memory (FCC referees TV as well as radio).

When radio first got started, back in the 1920s, nobody much supervised it. Stations got on the air in droves, with everybody interfering with everybody else's wave length—not only at home, but in Canada and Latin America, too. By the time Congress created FCC to get this tangle unsnarled, it was already too late to establish a completely orderly system.

• **Deep Freeze**—FCC vowed that the next time it would be different. So at the beginning of TV, it passed out a few channels to get the medium going, then froze everything. That was in 1948. The freeze was supposed to last about six months, during which interval FCC was going to work out a master plan for allocating stations throughout the entire nation. This piece of perfectionism was to take care of TV needs for years and years.

But the freeze kept dragging on. Color TV and other engineering problems complicated the issue.

Now at long last, it seems that the ice age will finally end in a thaw. Some time this month FCC will start accepting applications for the many new channels in the many new areas it wants to open up.

• **No Quick Cure**—That won't end TV's high blood pressure for a long while, though. Here's why:

• FCC will allow two to three months for the filing of new applications and the revision of old ones.

• Then the processing begins. But FCC hasn't as yet worked out its policy on how to process (the problems that arise in this connection are so complicated that they practically defy description). Moreover, the FCC is short-handed.

Finally, the successful applicant gets two months to start construction of his station, and six months to complete. An optimistic guess is that no more than 10 or 20 new outlets will get on the air this year.

So network competition for stations in the one-station and two-station markets will continue indefinitely. The process of begging, bribing, and stealing, however, by now has grown into such a refined art that the industry no longer bothers to cuss much over its cramped fate. In fact, the trade magazine Sponsor reports a new weapon in the guerrilla warfare in its current issue: Even the advertising agencies are sending out traveling representatives to woo the monopoly stations with kinescope (film) samples of their product, comparative program ratings, and personal salesmanship.

III. Low Blood Pressure

But one fine day there will be enough stations so that—as in radio—each network can have a solid affiliate in every major market.

• **Distorted View?**—Yet when the trade looks at itself in that distant mirror of the future, it shudders at what it sees. The economics of TV already are extremely complex. The economics of the future are a sheer fright. For example:

Currently, the gross cost of a CBS

nighttime hookup of 21 stations is $23,875 per hour. On NBC a 39-station nighttime hookup has a gross charge of $37,850 per hour.

Now, says the trade, suppose 100 station hookups become possible. If today's prices remain, that would carry the single-hour rate into the realm of $90,000 or thereabouts. Even a Procter & Gamble or a General Motors might well blanch at that.

Program costs, too, are a concern. A big show burns up lots of rehearsal time, lots of talent, lots of incidental expenses. And costs keep rising all the time.

• **$64 Question**—How, then, can network TV survive in the future?

The trade is baffled, but not willing to be licked, on this score: For example, CBS—whose president, Frank Stanton, is a whiz at mathematics—right now is building a studio setup in Los Angeles such as even a Cecil B. de Mille never worked in. Yet nobody questions whether it's the right thing to do.

In part, the TV trade's basic optimism stems from its lack of faith in prophets. The heralds of doom said that network radio was too costly to endure, and yet it grew all during the depression (barring only 1933); they said TV already was getting out of hand, yet NBC last year grossed more on its TV operations than on its radio operations (BW—Feb.16'52,p152).

• **Pros and Cons**—Those who plot the future in other ways than by automatically betting against the prophets have some speculations of their own.

Speculation No. 1 might be entitled "How do you keep your books?" This proposition works as follows: As TV gets too expensive for some advertisers, they will beat a retreat back to network radio. The money lost on the TV books comes up as income on the radio books—not so big, of course, but still quite an offset. The only flaw in this calculation is the very real prospect that some day the government will divorce network TV from network radio. Even so, there would be quite a time for the successful operation of this principle.

Speculation No. 2 is more grisly. It simply assumes that, as size of hookups and costs go up, one or two of the existing networks will have to throw in the towel. Then there would be enough business to keep the remainder alive and kicking.

Speculation No. 3 is more hopeful. It supposes that the networks will put on huge TV shows too elaborate in most cases for any one sponsor. But the sponsors could share them—timewise or regionwise. The believers in this theory point out that it already has a long history in both radio and TV in the "cooperative shows."

Speculation No. 4 is gloomiest of all. It assumes that future expenses will limit sponsorship to a handful of giants, insufficient to keep TV going the whole day through. The open spots would have to be filled with pay-as-you-go TV, similar to Zenith's Phonevision (BW—Jul.12'47,p16).

No one of these speculations in all likelihood will turn out to be true—clear-cut. They will probably all be tried, with a mixture as a result.

If New TB Cure Really Works...

. . . hospital construction may be cut way back. But it will take at least two years to test the dramatic claims for the drugs that New York hospitals are using.

Many a U.S. contractor wondered last week about some news out of New York City. Dr. Marcus Kogel, city commissioner of hospitals, announced the discovery of two new drugs that seem to be specific cures for tuberculosis. So sensational have been the tests with the drugs so far, said Kogel, that the city may be able to drop plans to build two new TB hospitals.

• **How Many?**—If that happens in New York City, it will also happen, of course, in every other part of the country. Nobody knows exactly how many TB hospitals have been planned for future construction, but hospitals containing at least 5,000 more TB beds are already going up.

Actually, TB hospital construction won't stop dead in its tracks no matter how good the drug is. But what happens to hospital construction in coming years will depend to a large extent on whether the dramatic claims for the drugs prove out.

• **Premature Break**—Nobody can have a clear idea of that, however, for at least two years. The reason is that the story broke prematurely, long before the drugs had been tested to anywhere near the degree that scientists like. Frequently, new drugs are tested for a long period on animals, then on perhaps 1,000 human beings.

At this point, enough evidence is on hand so that the drug is accepted by Food & Drug Administration and can be in production by the time the first public announcement is made. In the case of a TB drug like this one, "recovered" patients must be watched closely for up to two years thereafter for any aftereffects—such as recurrence of TB or the development of immunity by the bacteria the drug originally killed easily.

In this case, no more than 200 patients have been tested—for a period of about six months.

What happened was this: Hoffmann-LaRoche, Inc., one of the two discoverers of the drug, gave a quantity to 13 hospitals, one of which was Sea View in New York City. The other hospitals followed the usual procedure of conducting animal experiments before trying it out on patients. Sea View began giving it to some of its "hopeless" TB patients. They showed such remarkable improvement that Kogel was impelled to announce the good news three months ahead of time.

• **Close Relatives**—The two drugs are closely related; both are basically coal-tar derivatives. One of them was discovered independently by Hoffmann-LaRoche and E. R. Squibb & Sons. Hoffmann calls its drug Rimifon, Squibb calls it Nydrazid, but the products are identical. Besides this, Hoffmann has a second drug, which it calls Marsilid—apparently a refinement of the drug it shares with Squibb. Both drugs are made in pill form.

Both companies have become somewhat alarmed over the premature release of the story. The main reason is that neither has the drug in mass production—and can't put it in mass production until Food & Drug Administration accepts it. Hoffmann claims that it can be in mass production one month after that date.

• **Tough Bacillus**—The medical profession is alarmed, too. It fears that too many of the 250,000 known U.S. tuberculars, plus the estimated 150,000 unreported cases, will get too much false hope from the announcement. Doctors know from long and bitter experience that the tuberculosis bacillus is one of the toughest to kill—and one of the most facile at developing immune strains.

For example: While streptomycin is pretty effective in some TB cases, other strains of TB bacteria can't live except in the presence of streptomycin. The same thing may happen with the new drugs.

• **Construction Cut?**—All this means that plans for construction of new TB hospitals in the near future won't be dropped cold. But if the drug's impressive record holds up during the next few months, there is a good chance that plans may, say, be halved. New York's plans, for example, call for one $23-million TB hospital and one $15-million structure. Maybe the city will decide to put up just one of them.

NATO DELEGATES' decisions at Lisbon solidified European planning, but basically mean that . . .

The West Slows Its Push

The Wests' over-all defense policy, like the U. S. military program, is now geared to a new, slower timetable. So is Western diplomatic strategy. That's the meaning of the European military stretchout just approved at the Lisbon meeting of the North Atlantic Treaty Organization.

• **Triumph**—Considering how serious the Franco-German problem had become just before Lisbon, even a stretchout was quite a diplomatic triumph for Secretary Acheson. Lisbon might easily have produced a blowup, not just a stretchout.

• **Accomplishments**—In detail, here's what Lisbon accomplished: NATO approved of German rearmament, with a supranational European army. Germany gave up its claims for NATO membership and for complete economic sovereignty. But Germany will have a voice in NATO decisions. France gave up direct Allied control over German war production.

At the same time, the buildup of NATO troops was slowed down—even more than the planned figure of 50 divisions by the end of 1952 indicates. It was agreed that most of the member nations would slow down their own military buildups, particularly after 1952.

• **Reservations**—All the agreements still left these hard facts to face:

• Though NATO is scheduled to have about 50 divisions in Europe (30 of them combat-ready) by the end of 1952, the buildup beyond that will be very slow.

• There's almost no chance of German divisions until 1953, or perhaps 1954. That leaves the European defense community (six-nation joint army) pretty much in the air.

• U. S. troops will be needed in Western Europe indefinitely.

I. The New Situation

There's no doubt that the Western stretchout introduces important new elements into the East-West struggle.

As things look now, the West won't be able to "negotiate from strength" as soon as Washington once planned. That probably puts off the day of an East-West settlement, or a cold-war showdown.

There won't be enough Western strength for any "adventurous" policies in the Far East—such as letting Chinese Nationalist troops loose to attack mainland China.

On the other hand, with West German rearmament still way off, 1952 isn't likely to produce the kind of "German crisis" with Russia that some U. S. observers have been predicting.

• **Not Sudden**—Of course, the NATO meeting at Lisbon didn't suddenly decide on a stretchout. It formalized earlier decisions, like a slower French buildup; and it accepted European political realities, like the Franco-German squabble. Back of Lisbon lay the U. S. decision to stretch out its own military program.

What Lisbon did do was to provide the occasion to shake down plans that had been drastically revamped in the light of two major factors.

• The fact that Europe obviously couldn't stand the pace of the originally scheduled NATO buildup.

• A NATO reappraisal of Soviet intentions, confirming recent views of the State Dept. State has believed for some months that it had overestimated the danger that Korea was one step in a Soviet plan for World War III. And it now sees the U.S.S.R. as building up its industry for a prolonged cold

war rather than a hot one (page 137).

The stretchout hasn't changed NATO's idea of having a defensive force that will be a deterrent to any Soviet aggression in Europe. Under the new plan, SHAPE is supposed to have 50 divisions by the end of 1952. That will make the European defense picture a lot solider than it was two years ago, when NATO first got going.

U.S. military men question, though, whether this force will be strong enough, especially in air power, to do its job. They are worried that with the cutback in the U.S. aircraft program SHAPE may not get all the planes it's supposed to.

II. Pros and Cons

Beyond 1952, any big addition to NATO's military strength must come from West Germany. That's the one Western nation that still has big untapped manpower and industrial resources.

After Lisbon, German rearmament looks a lot more promising. Adenauer's position at home is stronger than it was before Lisbon. Western Germany's membership in the European defense community, plus a special tie with NATO, were approved by all the Atlantic Pact members. However, the actual formation of German divisions may be more than a year away.

• **Easing**—This long delay probably makes German rearmament more of a certainty. The NATO army will be a lot stronger next year than it is now. That will satisfy those Germans who haven't wanted to rearm without more protection than they would have right now. Then there has always been a danger that German rearmament would provoke a Russian attack, or at least bring a dangerous crisis in East-West relations. Until recently 1952 was picked as the critical year. It still could be. But the danger looks more remote now.

NATO's plans now depend pretty much on what Congress does when the new foreign aid bill goes to Capitol Hill next week. Truman will ask for $7-billion to $8-billion, most of it for NATO. If this should be cut by $2-billion or more, it's hard to see how the French arms program could be kept going or, for that matter, the French economy. And France is the key to NATO plans.

• **Long Period**—Building positions of strength is likely to remain a Western aim. But it looks now as if at best there'll be a long period of cold war before the goal can be reached.

Achievement of even longer-term U.S. goals—pushing back the Iron Curtain in Europe and upsetting the Communist regime in China—can be put still further into the future.

New Yardsticks...

. . . for business come from BLS' revised price index, FRB's figures on durables production

Businessmen are getting a whole new kit of tools to help them keep up with fluctuating cost.

This week the Bureau of Labor Statistics unveiled its new barometer for measuring wholesale price changes. BLS has been working on the revision—the first complete overhauling since 1926—for five years. The important changes are in commodity coverage, classification system, weighing factors, base period, and method of calculation. The new yardstick is official with the January, 1952, index numbers.

• **Changes**—Of course, the new index will serve the same purpose as the old. It will list on a monthly basis the recordings of exchanges or markets. But it will give broader coverage and greater accuracy.

At first glance, the most striking difference is in the level of the index. The new one now stands at 113.2% of its base period, compared with the current 177.8% level of the old one. However, that spread is due to the change in the base periods. The old index is based on 1926 prices; the new, on the average for 1947, 1948, and 1949.

• **Greater Coverage**—The choice of base periods isn't the only difference. The new index includes about 1,900 items, compared with about 900 covered by the old. Commodities developed during World War II have been added. Many new apparel items appear. Plastic materials, antibiotics, and cosmetics are now included in the chemicals group. Photographic supplies and several other fabricated metal products are still other important additions.

For the first time, coverage of machinery is almost complete. Since 1947, there has been no published index for this industry. Machinery and other durable goods were grouped in the BLS wholesale price index under the broad category "metal and metal products." And there were only a few machinery prices included. This has caused headaches aplenty, particularly for firms making cost estimates on new plants.

• **New Classifications**—The new index includes 15 major groups and 88 subgroups. The old one covered 10 majors and 50 subgroups.

In the revised index, group and subgroup weights are based on the 1947 data of the Bureau of Census. In the case of specific commodities, relative weights are based on a more typical year than 1947 if production or shipment figures of that year were distorted. In the earlier index, weighing factors were based mainly on sales in the years 1929 and 1931.

• **Less Paper Work**—Beginning with 1952, prices used in the index will be those of one day in the month—in most cases the Tuesday of the week containing the 15th of the month. Before, prices used in index calculation were the simple averages of the four or five weeks in each month. That involved figuring averages for several thousand items.

BLS claims that the new barometer will simplify life for businessmen, because they'll be better able to compare the prices they're paying out with general market prices. The new index will provide a better yardstick to estimate expansion costs. And the up-to-date index will be a valuable gauge in long-term business contracts, which usually are negotiated on the basis of a fixed price that slides up or down along with changes in the wholesale price index.

• **FRB's Contribution**—BLS isn't the only bureau that's been busy with sharp pencils. The Federal Reserve Board is now publishing two new monthly indexes on durable goods production. One includes all consumer durables; the other is for household durables, with subindexes for home appliances, furniture, carpets, and radio-television.

While we've always had figures on the actual number of automobiles and electric appliances being produced, never before have they been combined into a weighted index, nor have they been seasonally adjusted. The figures on production of individual items went up and down with the change in seasons and with inventory levels in the individual items. Neither merchant nor manufacturer could get much of a picture of the over-all demand for household goods or for all consumer goods.

FRB's index is a regular monthly series, published in the Federal Reserve Bulletin.

• **Also**—In addition to the government indexes, some important new data have been published recently by trade sources. The National Electrical Manufacturers Assn. has expanded its annual figures on shipments of electrical products to include a complete breakdown by types.

Electronics, a McGraw-Hill publication, now publishes a monthly production index showing the progress of the fast-growing electronics industry. Latest figures show that, with civilian products picking up and the steady lift of defense production, the industry is now producing more than in December, 1950—when scare-buying of TV sets by consumers pushed production to a record peak.

Fresh Water . . .

. . . from the sea on a big scale is possible with Ionics, Inc., equipment. The price is close to right.

Since the beginning of time people have been dreaming of a practical method of getting the salt out of sea water on a massive scale. Last week Ionics, Inc., an affiliate of American Research & Development Corp., Boston, announced that it had an answer.

The Ionics method, announced by its president, Dr. Edward R. Gilliland, is still a relatively high-cost process. But it comes close enough to a competitive price to excite farmers, factory owners, and city fathers in water-short areas. Against a fairly high cost of operation, it can offset low-cost equipment and economical maintenance.

• **Coastal Areas**—Irrigation and industry are possibly the two biggest applications for the process. Ionics thinks it will be a boon to thirsty coastal areas such as New York, Texas, and California (BW–Sep.9'50,p82). There, farmers and industries have been seeking short-term solutions for poor water supplies.

The Ionics process may even open up arid areas in Australia, the Middle East, and South America. But there might be one hitch, here and abroad: Costs for amortization, transportation, and pipelines, on top of operating costs, could push the water's price out of the competitive market.

• **Ion Exchange**—The crux of the process is a kind of chemical separation, called ion exchange. The details are an Ionics secret. But the process is roughly this: Sea water flows through membranes (or "filters") charged with electricity. The charges on the membranes swap places with the charges of the salt carried in the water. Thus the salt and water are separated. Two-thirds of the water comes out nearly pure, and the other third carries away the salt in the form of brine.

Ionics plans to mass-produce its equipment at prices that will keep processing costs between 10¢ and 20¢ for each 1,000 gal. of pure water. The price will depend on the salt content of the water, and the rate at which it is pushed through the equipment. Power consumption goes up as you boost the rate of flow. The only expendables in the gear are the membranes, which are made from cheap plastic.

• **Need and Cost**—The success of the process will depend on two things: how badly agriculture and industry need water, and how much they are willing to pay. Industrial supplies from fresh water sources now run as high as 10¢ per 1,000 gal. The price spread for irrigation water in the West goes from 2¢ to 10¢ per 1,000 gal.

In Western areas where electric power rates are at rock bottom, 1,000 gal., run through Ionics' equipment at a low rate of flow, would need 20 kwh. and cost about 6¢. To meet agricultural demands, the sea water would have to be processed at a faster rate, making the price higher. Equipment and transportation costs would have to be added.

Ionics' highest estimate for 1,000 gal. is double the cost of the most expensive water in the richest farm lands of California. In a pinch, farmers there might pay the price. But Ionics will have to cut its processing costs to make the water prices more attractive in an average market.

The brine waste isn't a total loss for industrial users. Ionics says that it can be treated to extract salt, magnesium, and the other chemicals peculiar to sea water. Ionics suggests another possibility: reduction of milk, sugar, and organic chemicals.

Take the rayon cellulose acetate industry. It annually dumps thousands of gallons of acetic acid as waste. The acid is worth money. But it isn't concentrated enough to be recovered economically by conventional methods. Ionics thinks that it will be able to concentrate the waste via the exchange process and evaporate the brine to recover the acid.

Auto Pileup by Design

Model of mechanical parker, which stacks automobiles 10-high, intrigues Foster Winter, president of Detroit's municipal parking authority. The motor city may soon build a full-size, 100-car trial rack, as possible solution to the city's parking problem.

Fair-Trade War . . .

. . . has been declared by druggists on St. Louis Post-Dispatch. Paper's anti-fair-trade cartoon started it.

Fair-trading druggists in St. Louis are cutting prices—on the Post-Dispatch, a leading anti-trade newspaper.

A couple of weeks ago drugstores that handle the daily and Sunday newspaper started selling copies at cut rates and also cut the prices on want ads they handle for the Post. The Post countered by cutting down the druggists' supply of newspapers.

• **The Opening**—The Post-Dispatch is not the only newspaper that has had a big hand in keeping the fair traders down in Missouri, one of the three states that has no fair-trade laws. What made the druggists single it out was a cartoon that the Post ran on its editorial page, picturing the advocates of fair trade as a big, drooling hog.

This enraged the druggists, gave them the opening they wanted. As one druggist put it, "They don't offer anything below cost, but they expect us to cut the price on dozens of items. Let's see how they like having their own prices cut."

• **Attack**—The board of directors of the Retail Druggists Assn. of St. Louis nodded its approval at a meeting Feb. 19. Suddenly, placards appeared in drugstore windows all over St. Louis, announcing that the Post could be had for 4¢ daily and 13¢ on Sunday (it normally sells for 5¢ daily, 15¢ on Sunday).

Many drugstores also handle want ads for the Post. From now on, the several hundred drugstores taking part in the project are offering to place want ads at 15% off.

What do the druggists think they will accomplish? They hope to bother the Post's distribution system by making the competing newsboys unhappy and maybe causing some subscribers to cancel their subscriptions and buy from drugstores instead.

• **Unruffled**—The Post is taking the ruckus calmly, at least outwardly. Last Monday it cut the drugstores' supply of newspapers. The reason, says C. J. Hentschell, business manager of the Post, is simply that "we didn't like the way the drugstores were handling it."

• **Druggists' Turn**—The next move seems to be up to the druggists. As to what the next move will be, Herman Winkelmann, president of NARD in St. Louis, says only: "We feel that this is a violation of the antitrust law and will definitely proceed along these lines."

The Fed: Showdown Fight Coming Up

● Its friends, led by Sen. Paul Douglas, think it's the best anti-inflationary tool the country has.

● Its critics, led by Rep. Wright Patman, think it has been the major cause of every depression since it was founded. Patman will start hearings Mar. 10.

● Hottest issue of all: Whether the Fed's recent credit tightening has helped or hurt the economy.

The friends and foes of the Federal Reserve Board are heading for a showdown. Rep. Wright Patman, as chairman of the Joint Congressional Subcommittee on Money and Credit, will start hearings Mar. 10.

This week he released two thick volumes of answers to questions he had put to the Federal Reserve, the Treasury Dept., the Council of Economic Advisers, the Comptroller of the Currency, Federal Deposit Insurance Corp., banks, economists, and security dealers. They were the most exhaustive questions on money and credit put out by a Congressional committee since the Federal Reserve was established. The Fed's reply alone covered 850 mimeographed pages. The answers show how the hearings will shape up.

In many ways, the replies are only a rehash of material gathered in 1949 by the same subcommittees. But the committee head then was Sen. Paul Douglas. The Fed came off with a vote of confidence that encouraged it to go ahead with a more active anti-inflation program. The difference this time is not the ingredients, but the cook. Rehash or not, the new chairman hopes the result will have a different flavor.

• **The Big Bone**—Top issue in the hearings will be whether general tightening of credit—as practiced since last March by the Fed—helps or hurts an economy that is trying to stop inflation and expand military power at the same time.

The case for the Fed as a better price controller than the price controllers themselves can't be proved to everyone's satisfaction. The question centers on the timing of last year's business slowdown:

Prices sagged in places, and soft spots showed up in the business picture just about the same time the Fed quit supporting Treasury securities at par.

To stout defenders of credit controls, the moral was plain. While the Fed was buying nearly $3-billion worth of government securities from June, 1950, to March, 1951, it was automatically expanding the base of bank credit. Lenders put out $11-billion in new loans. Douglas thinks that was the chief cause of post-Korea inflation.

Then, following the "full accord" agreement last March between the Treasury and the Fed, the Federal Open Market Committee unpegged government bonds and cut down its purchases of them—a move designed to slow down expansion of bank loans. Instead of a $7.5-billion increase in loans, as in the last six months of 1950, expansion dropped in the last half of 1951 to $3.5-billion. The drop in bond prices also made institutional investors cut their forward commitments on mortgages and other loans.

To Douglas, direct price control, as practiced by OPS, is merely something that doesn't do any harm. The real inflationary slowdown, he insists, was due to this action of the Federal Reserve.

• **The Other View**—There is plenty of ammunition for the other side in some of the answers to Patman's questionnaire. Most anti-Fed are the answers of the Council of Economic Advisers. The council threw doubt on general debt contraction as a way to fight inflation. It warned that the time may come—and soon—when support of government securities at par will again be necessary, no matter how much it inflates credit.

The council ran up a warning about interest rates that was bound to please Patman—a long-time cheap and easy money man. It argued that even if the Fed did succeed in stopping an expansion of loans, the resulting rise in interest might remain an obstacle to economic growth long after the inflationary crisis is over.

• **Second Speaker**—In a milder way, the Treasury got into the argument by endorsing selective credit controls rather than a general tightening that would raise interest rates.

It plugged for rules like Regulation W, limiting consumer installment credit, and Regulation X, limiting real estate lending. Its idea is that special areas can be controlled without forcing the Fed to lessen its support of U.S. securities. The Fed's reply on selective controls is this: It doesn't know enough about them yet to recommend any more—and besides, it doesn't like the detailed supervision, nor does it think selective credit restraints can ever be anything but aids to general controls like open market sales of government securities and higher reserve requirements that cut down lending power of the banks.

The Treasury's answers, on the whole, showed a consistent desire to make the current peace with the Federal Reserve a lasting one. At the request of Patman, Secretary Snyder documented a long series of disputes—but specifically did not recommend clipping the Fed's independence. His explanation of the March accord is word for word with the Fed's own answer to Patman.

Secretary Snyder pointed out that a stable market for securities is not necessarily a rigidly pegged market—a view shared by the Fed. He admitted that inflexible support at par could be inflationary.

• **Questionnaire**—Here is how answers to some of the other Patman questions shape up:

Independence of the Fed: Patman favors direct control by the President, and government ownership of Federal Reserve stock now held by member banks.

Bankers and the Fed sat hard on this idea in their replies. Though the Treasury did not recommend reducing the Fed's independence, it did bear down on the possibility of a harmful conflict in policy. CEA, in a fuzzy answer, seemed to say that the President is ultimately responsible for what the Fed does, despite a "degree of independence." The subject is one that Patman can be counted on to hammer.

Credit restrictions vs. economic growth: Patman is afraid the Fed may block needed expansion in the name of fighting inflation.

CEA backed him up to a limited extent. The Fed says there is no conflict. It will have a chance to argue the point further.

Small business: Patman thinks the money market is rigged against small borrowers. The Fed said they may have trouble raising equity capital, but that the short-term loans aren't particularly hard for small business to get.

It suggested further exploration of ideas for a special government corporation to supply equity capital to business that can't manage a stock issue.

Ryerson Adds Steel-Service Plants at Seattle and Spokane

We are pleased to tell you that we have extended our steel service to the great Northwest through purchase of the stocks and facilities of the Seattle Steel Co. of Seattle and the Inland Empire Steel Co. of Spokane.

These associated companies are leading distributors of carbon, alloy and stainless steel in their areas. They also supply reinforcing bars and carry stocks of aluminum, copper and brass. Under the able direction of Clyde Summerville, president, William Case, Seattle sales manager and Roy Bialkowsky, manager at Spokane, they have served the Northwest for many years.

Recently, Mr. Summerville, the principal owner, found it necessary to lighten his work load and invited us to come in. But, fortunately, these experienced men together with most of their staff are carrying on with us to assure a continuity of good service. Ray Lockwood, former Ryerson railroad sales manager who has more recently been concerned with government regulations, is now the assistant manager at Seattle.

Both plants will continue to carry a wide range of products, and stocks as well as facilities will be expanded when and where possible. This move adds the 14th and 15th plants to the Ryerson steel-service group serving steel users across the nation. We trust that our service in the Northwest will merit the continued good will of the region's steel users.

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BUSINESS BRIEFS

Wayne Coy (above) resigned last week as chairman of the Federal Communications Commission, signed this week as full-time television consultant with Time, Inc., starting Apr. 1. He said he couldn't live on his $15,000 government salary.

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Firing squads this week started slaughtering 1,350 cattle, sheep, swine, and goats in a quarantined section of Saskatchewan, near Regina, Canada. The animals were marked as victims of hoof and mouth disease; cases were found less than 100 mi. from the U. S. border. Embargo on all shipments of meat and livestock from any part of Canada is not expected to affect U. S. supplies; less than 0.5% of our meat came from Canada last year.

•

Harry A. McDonald was confirmed by the Senate this week as a director of Reconstruction Finance Corp. The vote favored him 2 to 1 after heated debate.

•

Texas oil production in March will hit an all-time high of 3,131,665 bbl. a day, topping a 3,128,709-bbl. withdrawal permitted last fall.

•

H. Frederick Willkie's lost his last chance to regain presidency of Kingan & Co., Inc., Indianapolis meat packers (BW—Feb.16'52,p130). Stockholders last week favored the anti-Willkie slate of directors by 632,169 to 116,779. Willkie had been deposed as president by the directors a week earlier.

•

Liberty Broadcasting System of Dallas, Tex., filed a $12-million triple-damage antitrust suit against major league baseball for restrictions on its "game of the day" broadcasts.

They did

Every executive with a production problem will be interested in what this sugar refinery operator* did to solve his. During a concentrated six-month sugar harvest, machines must operate at peak capacity. Complete dependability is a vital factor because a perishable commodity is at stake. To increase production and insure continuous operation, this operator decided to modernize his mill.

what

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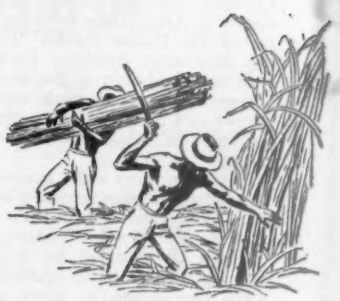


*name on request

YOU CAN BE SURE... IF IT'S

Westinghouse

AKRON'S NEW CO-OP center is modeled for manager A. J. Choat (left) and Walter Reuther, UAW president. Question for . . .

Retail Co-ops: Can They Make Good?

Urban consumer co-ops have a spotty record. But Akron unionists have invested $500,000 in an ambitious try.

Early next month a $500,000 co-operative shopping center will be opened in Akron, Ohio, with the backing of the United Rubber Workers and other union members. It's a big-scale test of whether or not an urban consumer co-op can catch on—most haven't—and everyone with a stake in its success or failure will be watching closely.

City co-ops have had a stormy past. Time after time, they've started bravely, then fallen flat on their faces. Co-operative Enterprises of Akron, Inc., has tried to foresee all the shortcomings that wrecked earlier ventures.

• **Has Everything**—The Akron project has been two years in the making. It was, in fact, deliberately held back till it had ample capital. About 5,000 individuals, mostly rubber workers, subscribed more than $250,000 at $25 a share; local unions bought preferred stock. The preferred stock will be retired as soon as enough additional common can be sold.

The Akron co-op hired a manager, A. J. Choat, who has had 12 years of cooperative experience. His recipe for success is to start out with modern facilities that can match the biggest chains. The shopping center, therefore, offers a supermarket, a drugstore, a restaurant, a dry cleaning shop, a clothing store, a hardware store, a service station, and credit union offices. It's geared to gross from $2½-million to $3-million a year.

Instead of picking a lower-cost, out-of-the-way site, the Akron group built close to one of the busiest corners in Akron, four miles from the downtown center. It provided parking space—always a vital consideration—for 225 cars, expandable by an additional 200 cars later.

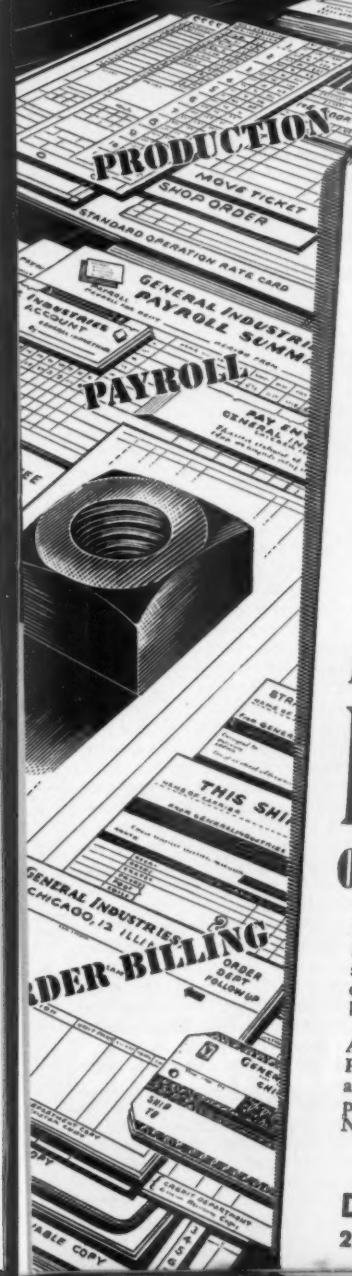
Choat feels the shopping center has what it takes to attract not only the nearly 70,000 union members in the region, but the general public, too.

• **Growing, But Small**—Up to now, the growth of consumer cooperatives in the U.S. has lagged far behind the growth of European co-ops.

The Bureau of Labor Statistics estimates total retail distributive co-op business at about $1.3-billion in 1950 (the latest year for which figures are available). That's a big increase from 1940, when the total stood at $228.3-million, but the $1.3-billion is still less than 0.9% of total retailing.

Furthermore, the bulk of the business in 1950 was done by rural co-ops rather than urban units. BLS breaks sales down this way: $1.1-billion for rural co-ops, $193-million for urban stores. And most of the rural trade is in fertilizer, feed, and other farm needs rather than consumer goods.

Actually, the figures aren't definitive. The Cooperative League of the U.S., for example, claims that the co-ops do about 2% of all U.S. retailing. But even that percentage looks almost negligible beside the European figures. BLS put prewar consumer cooperative business at 17% of total retail trade for Denmark, 15% for Sweden, 30% to 40% for Finland. Its 1942 figures for Great Britain ran 12% in food and tobacco sales, 14.5% in meat, 20% in



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". . . less economic need for co-ops in the U.S. than in Europe . . ."

CO-OPS starts on p. 30

coal, 27% in sugar and preserves. Today European figures are, if anything, higher than they were.

In the U.S., co-op retailing hit its percentage peak of 0.94% of all retail sales in 1948, then sagged back during the pre-Korea recession.

• **Basic Question**—The striking disparity between Europe and the U.S. raises a question: Is there a place for co-ops at all in our economy?

It seems quite clear that there's less economic need for co-ops here than in Europe. Growth of consumer co-ops, especially in urban areas, has been retarded in the U.S. by two main factors:

• The efficiency of modern marketing for profit, and

• The relatively high degree of prosperity in the U.S.

Co-ops in Europe escaped the working of the first factor; they got there ahead of the chains. In fact, they were the first chains in Europe. The Rochdale movement (named after the town in England where the first co-op was formed in 1844) developed in retailing, then wholesaling, finally all the way back to manufacturing.

In the U.S., cooperative development was sporadic till 1900, didn't really spurt until the depression '30s. By that time, the chains were solidly established. And it takes a hardy co-op to compete with such low-margin, large-volume operations as the A&P—whose $3.1-billion sales in 1950 far outstripped the entire consumer co-op business (BW—Aug.4'51,p42).

• **Prosperity Angle**—The prosperity factor is equally important. Interest in co-ops thrives when times are hard enough to overcome ingrained buying habits. In the U.S., those times come rarely. The American housewife is indoctrinated in awareness of brand names, in concern over easy parking and a wide choice of stock. These things weigh more heavily than the saving of nickels on the week's food bill.

The social climate is also different from Europe's. There isn't the homogeneity of class that marked Europe for generations. In England, the worker stands solidly behind his cooperatives; here, however loyal the laborer may be to his group, his wife is likely to be guided by universal American buying habits.

Geographically, too, there is less stability here. Americans move frequently, and it's hard for consumer co-ops to build an efficient business around consumer-owners who are continually

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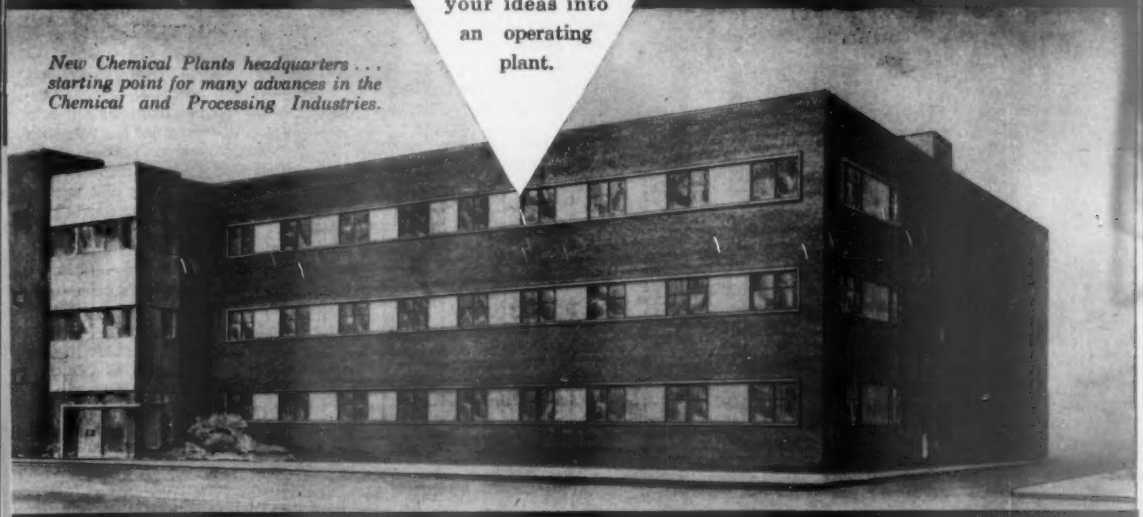

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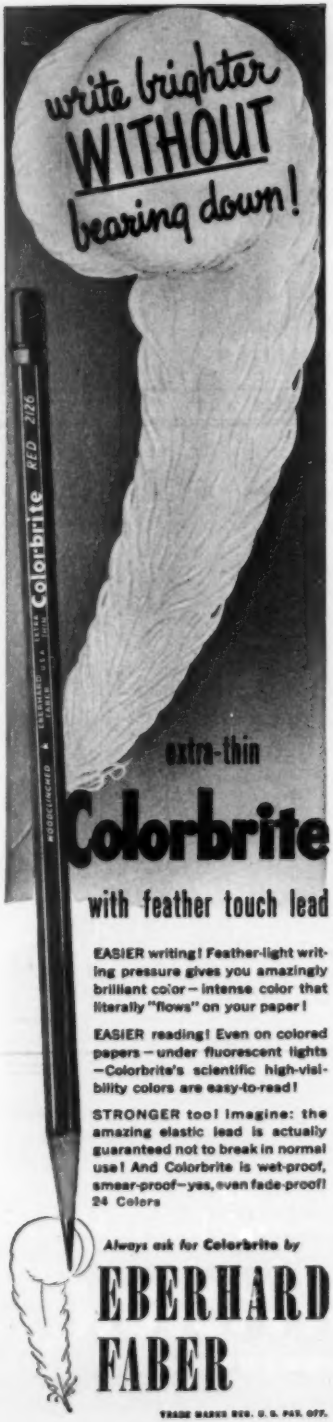
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"... It has been described as 'the love principle applied to business' ..."

CO-OPS starts on p. 30

picking up and moving away. When this movement is heavily cityward, as it has been in latter years, co-ops are doubly hit. For cities are notably harder to sell on the co-op idea than rural areas.

• **Labor's Role**—With all these influences operating, organized labor has for years been passive toward the cooperative movement. Unions have approached their objectives by the direct route of seeking higher wages, rather than the indirect route of lining up more value for their buying dollar.

There have been outstanding exceptions, of course. One of America's most successful co-ops was founded by labor in Waukegan, Ill., in 1908. In 1950 that co-op reported business of nearly $2.7-million. A Dillonvale (Ohio) cooperative set up by coal miners sold nearly $2-million worth of goods in 1950. In Minneapolis, teamsters got a successful co-op going; in Minnesota and Wisconsin, farmers and unionists have often worked together in sound co-ops.

Since the war the United Auto Workers has been especially active in this field (BW—Oct.11'47,p24). UAW now runs two co-ops in Detroit, one each in Pontiac, Flint, Lansing, and Muskegon, Mich. So far, though, none of the stores has paid a patronage dividend.

• **Love in Business**—In general, labor-sponsored cooperatives have fared no better than the average. It seems to boil down to the fact that our society today is oriented to competition rather than cooperation, to the supermarket rather than to the barn-raising and the husking-bee. One co-op advocate describes the movement as "the love principle applied to business." So far, rugged individualism has triumphed over love feasts.

The most loyal cooperator would admit this. Idealism, he'll confess, has often been incompatible with efficiency. A basic hazard of co-ops has been their own business errors.

• **Pitfalls**—A co-op normally starts with a group of enthusiasts who band together to eliminate the profit motive. They buy stock, with the idea that any profits will be returned to them as owners and customers. Stockholders, with one vote apiece regardless of how many shares they own, elect directors from among themselves.

This has often resulted in an enterprise with too little capital, inadequate and poorly situated plant, scanty stocks, underpaid management, little business savvy. Often, too, co-ops were set up where real need was lacking.

• **Degrees of Success**—The great farm co-ops have flourished because they fill a real need—they supply the farmer with equipment and provide a market where he can sell his produce. Since World War II, credit unions and insurance associations have also filled a need for cash and savings.

Perhaps the most significant postwar development has been the housing cooperatives. In 1945 they grossed $1.6-million income; in 1950 they were up to $10.7-million. Federally insured mortgages for cooperative housing add up to $332-million for 35,900 housing units (including apartments).

In contrast, retail distributive co-ops have dwindled from 4,550 associations in 1945 to 3,235 in 1950, though membership has risen from 1.8-million in 1945 to 2.6-million in 1950 and total business has increased.

• **Hopeful Signs**—A few 1951 figures have come in, and they're encouraging to the co-op people. Kansas City's big wholesale Consumer Cooperative Assn. reports a volume of $70-million in the year ended last June; that's a $10-million increase over the previous fiscal year. Eastern Cooperative, New Jersey grocery wholesaler, did $3.3-million in 1951. That's down from the 1947 peak of $6.3-million, but the firm has been through reorganization since then and did only a $3-million business in 1950.

Even some urban retail cooperatives report improved business. The Greenbelt (Md.) cooperative center near Washington branched out last year with a new supermarket in Takoma Park, Md.; it reports both Greenbelt and Takoma Park holding their own against toughest competition. The Shirlington (Va.) department co-op is doing business of more than $1-million.

Some of the biggest co-op stores are in college communities. Example: Harvard Cooperative Society has a volume of about $3.5-million a year.

• **The Co-op's Place**—Cooperative boosters take these signs as evidence that the co-op has a real place in the economy. It is the one spot, they argue, where the consumer's interest is identical with that of management. And co-ops are working toward quality brand development, toward efficiency. They have proved they can act as a brake on runaway prices—as when the Franklin Cooperative Creamery Assn. of Minneapolis drove down milk price in its areas.

They take heart, too, from the thought that they have learned from their mistakes. One cooperator summed up the new approach like this: "Co-ops have a place if they understand they have to win their way not as cooperatives but as stores."

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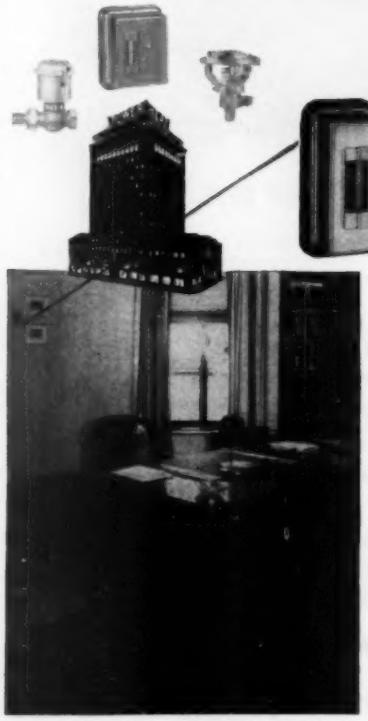

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Top five ad agencies in 1951 were still J. Walter Thompson ($138-million billings), Young & Rubicam ($114-million), BBD&O ($104.1-million), N. W. Ayer ($85-million), McCann-Erickson ($81-million). Advertising Age also reports in its annual roundup that 45 agencies were in the $10-million-and-above category as against 26 agencies in 1945.

•

Shoe buying is at dead center. International Shoe (10% of the nation's output) last year had dollar sales of $223.3-million, up $24.6-million. But unit sales came to 48.3-million pairs, down 6% from 1950 despite heavy military purchases.

•

Canned whole milk will be produced at a Ridgeland (Wis.) plant by International Milk Processors, Inc. This is the concern's second plant. It is now producing canned milk for the armed services in the state of Washington, plans still another plant in California. Trade name: Med-O-Milk.

•

Nedick's, under the guidance of Walter S. Mack, Jr., former head of Pepsi-Cola (BW—Oct.27'51,p152), has come up with a new soft drink. This "pure fruit orange drink" will be sold over the counter at Nedick's lunch stands and in 6-oz. cans of concentrate via grocery stores. Other Nedick's plans: prefabricated store units, a franchise system, new store design. It will also concentrate heavily on "Lunch Pails" for take-out lunches.

•

Supermarkets did a total business of $12.4-million in 1951, or nearly 42% of grocery store sales, says Super Market Merchandising. That was a gain of 11.4% over 1950 for the 15,383 stores in the group (those with sales of at least $375,000 and with four basic departments).

•

The new Bendix washer—called Snow White and tied in with the revival of Walt Disney's film—has a heater that raises water temperature to around 145 F and keeps it there during the washing. Water usually cools 13 degrees in the process, Bendix says.

•

The gasoline price war in Philadelphia and Camden knocked unbranded gas to 11.9¢ a gal. in some areas; standard brands were down to 15.9¢.

•

Price cuts for Raytheon TV consoles and radio-phonograph combinations followed cuts by other makers. Raytheon slashed $20 to $155 off its bigger lines, $10 to $30 off its table models.

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Hartford Detroit Chicago

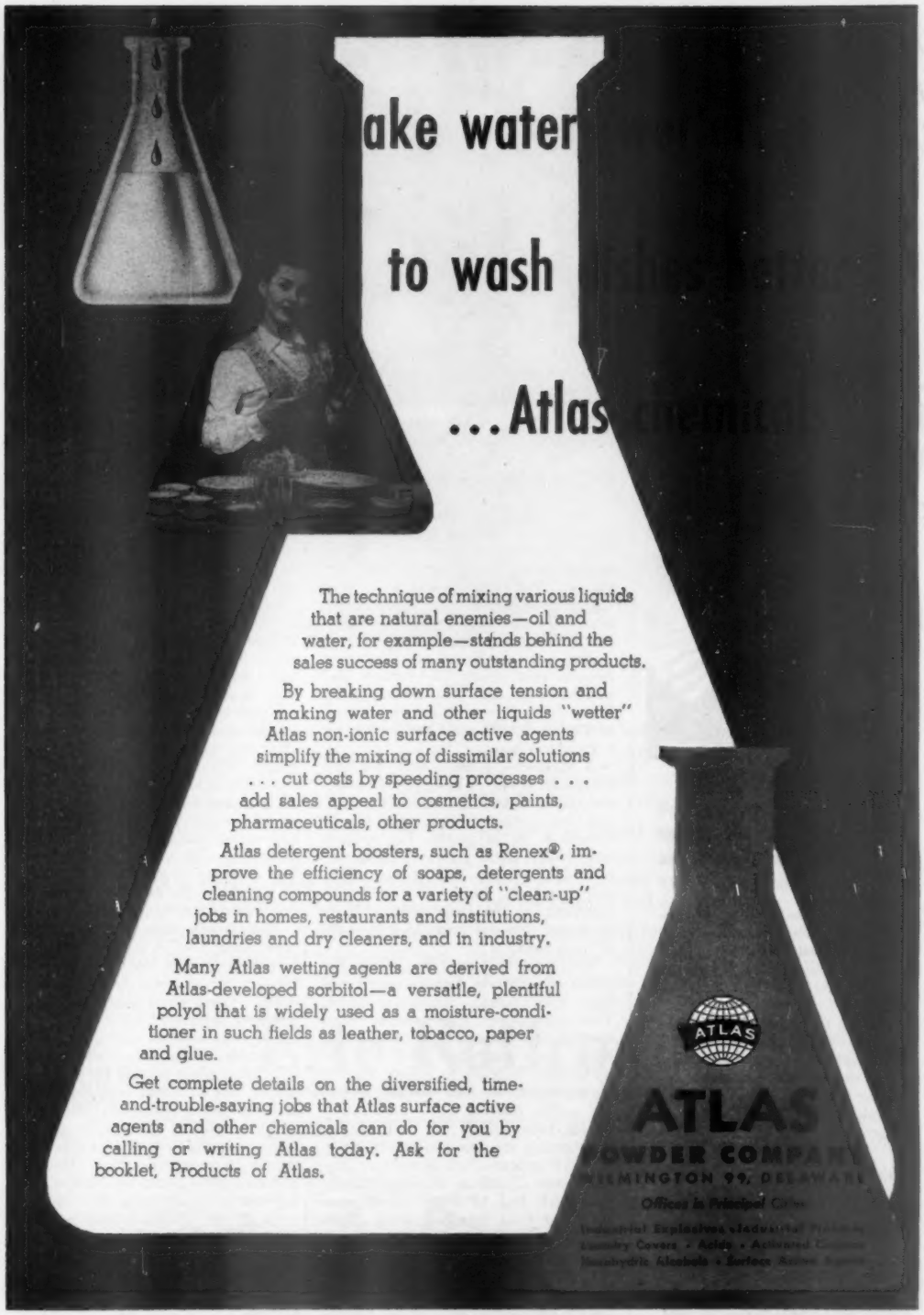
MOVABLE WALLS in A&P's new refrigerated produce warehouse in Toledo are made of aluminum and fiberglass. They separate dry rooms (dairy products) from wet rooms (green goods), can be shifted as needs dictate.

A&P Packs New Warehouse With Tricks

(Story on page 40)

PREPACKAGING Banana hands are weighed, priced at warehouse to save time at stores.

INTERIOR DOCKS Unloading docks for freight cars are right inside the warehouse.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CONVEYORS overhead eliminate handling of meat, which goes straight from refrigerator cars to storage. Turnover is fast; meat rarely stays more than a day.

(PICTURES on page 38)

When the Great Atlantic & Pacific Tea Co. was planning its new Toledo warehouse for produce and meat, it used just about every trick there was in the bag. The resulting one-story building, formally opened this week, is about what you would expect from the world's No. 1 food wholesaler.

The new warehouse on Westwood Avenue cost about $1.5-million and was built to A&P's specifications by Forty-Third Street Warehouse Corp. of Dayton. A&P rents the facility on a long-term lease.

• **A Monster**—To begin with, the new warehouse is big. The refrigerated section alone covers 22,500 sq. ft. Each year the produce section will handle 80-million lb. of goods. Put another way, that's 1,300 railway freight cars plus 2,300 trucks full of vegetables, dairy products, fruit. The meat department, at the same time, will receive and ship out some 15-million lb. of fresh meat.

That's only a starter. Eventually, the 32-acre Westwood Avenue center will have even greater warehouse space. Two warehouses have already been merged into the one that opened this week. As a final step A&P will put up another building to replace the big Toledo warehouse now handling staples and coffee roasting.

• **Side Issues**—A&P had to think big in planning its new center. It serves 55 A&P supermarkets in an area covering some 20,000 sq. mi., which means that A&P had to worry about more than just food handling alone. Here are some of the other facilities it provided:

Parking area. To truck meat and produce daily to its 55 stores, A&P has to maintain a fleet of 45 tractors and 60 trailers at Toledo. This alone requires a considerable parking area, to say nothing of the space needed for the trucks that bring in half of the warehouse's annual supply of produce, three-quarters of its meat. The new center has 5¼ acres of parking space.

Salvage department. Trucks returning from the stores bring in some 5.5-million lb. of waste paper yearly together with barrels, boxes, bottles, and bags. Marketing this salvage material is an important part of the operation.

Employee facilities. The new A&P warehouse has a cafeteria for the 400 office and plant workers. It also has a lounge where truck drivers can rest and make out reports.

• **Operating Gimmicks**—As far as the actual warehousing operations go, A&P has mixed standard practice such as palletizing with new ideas of its own. The company is particularly proud of its movable walls for dividing wet and dry rooms (picture, page 38).

The Toledo district is working on other ideas, too. A good example is a corrugated carton with fiberglass insulation for shipping frozen foods to stores. These containers carry 80 lb. and have been used for as many as 25 round trips without damage.

• **Outside Influence**—Some changes have taken place outside the warehouse proper, but have had important effects on warehousing operations.

A&P stores in the Toledo area, for instance, are closed on Mondays. This provides a double advantage. The produce men get a break, for Sunday night delivery to the stores is out. And the men at the staples warehouse get a break: They have all day Monday to stock up the stores with staples, using the main floor of each empty store as a depot while they are stocking the shelves.

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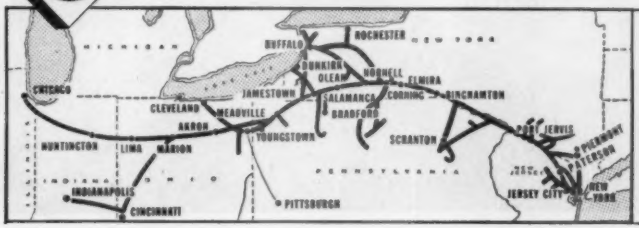

FOR ACTION AND INFORMATION—

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Room 500A, Erie Railroad
Midland Building, Cleveland 13, Ohio
CHerry 1-8400
or
Industrial Development Department
Room 1078A, Erie Railroad
50 Church Street, New York, N. Y.
Worth 4-4500

The metals that think for man

A giant with a super-human "brain" lives in New York City. In minutes, he can solve mathematical problems that would take a human years.

In less time than it takes you to read this, he can compute the position of a planet, the trajectory of a shell or the path of an electron as it whirls around its nucleus in the dark, silent world of the atom. He works out the intricate formulas for rocket motors, guided missiles and atomic power plants.

His official name is SSEC — for Selective Sequence Electronic Calculator. But most people simply call him The Machine.

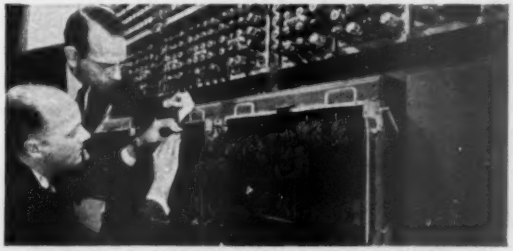
The Machine is a complex mass of millions of metal parts. His "brain" is a lacelike network of electric relays and electronic tubes. It is composed, in large part, of copper, silver, zinc, lead, vanadium, platinum and selenium. And it is connected by a nervous system of more than 250 miles of copper wire.

In the forefront of the development of such man-made "super brains," is Anaconda's far-reaching program of pioneering and progress in metals . . . the discovery of new techniques in mining and metallurgy . . . the development of new ways to produce better metal products.

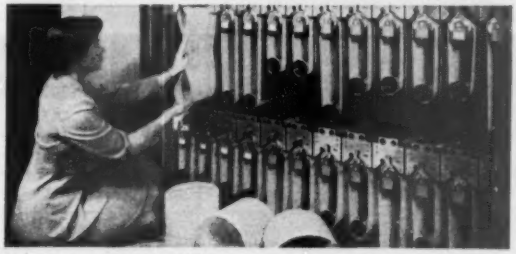
This is a continuing program that will help make possible even more complicated calculators of the future . . . highly developed electronic "brains" that may some day predict and chart economic trends to help control booms and depressions . . . prepare accurate long-range weather forecasts...eventually, perhaps, operate industrial plants automatically.

Through progress in science, in industry—and in metals—the brave new world of the future is just around the corner. In fact, it's ready to knock on your door. 8309A

THE CALCULATOR'S "THOUGHT PROCESSES" are supervised at this master control desk. Precision equipment required for such technological miracles is highly dependent upon synthetic insulations—like those developed by the Anaconda Wire & Cable Co.—which were especially designed to fit complex wiring jobs into limited space such as this.



WHEN YOU LOOK INSIDE the calculator's "brain". . . you see a complicated maze of metal parts. The American Brass Co. (an Anaconda manufacturing division) produces 20 different copper alloys for International Business Machines Corp., the builders, which are used in the construction of electronic calculators and other business machines.



THE CALCULATOR "LEARNS" what to do next by means of punched tapes that pass over rolls of silver. Today, defense has first call on all metals. But Anaconda is producing *more* metals, developing *new* sources of ore and *new and improved* methods of mining and manufacturing in order to meet the ever-increasing demands of both science and industry.

THE CALCULATOR'S MACHINERY covers three walls of I.B.M.'s New York computing laboratory. This photograph was taken with a 180° lens which enables the camera to show all three walls simultaneously.

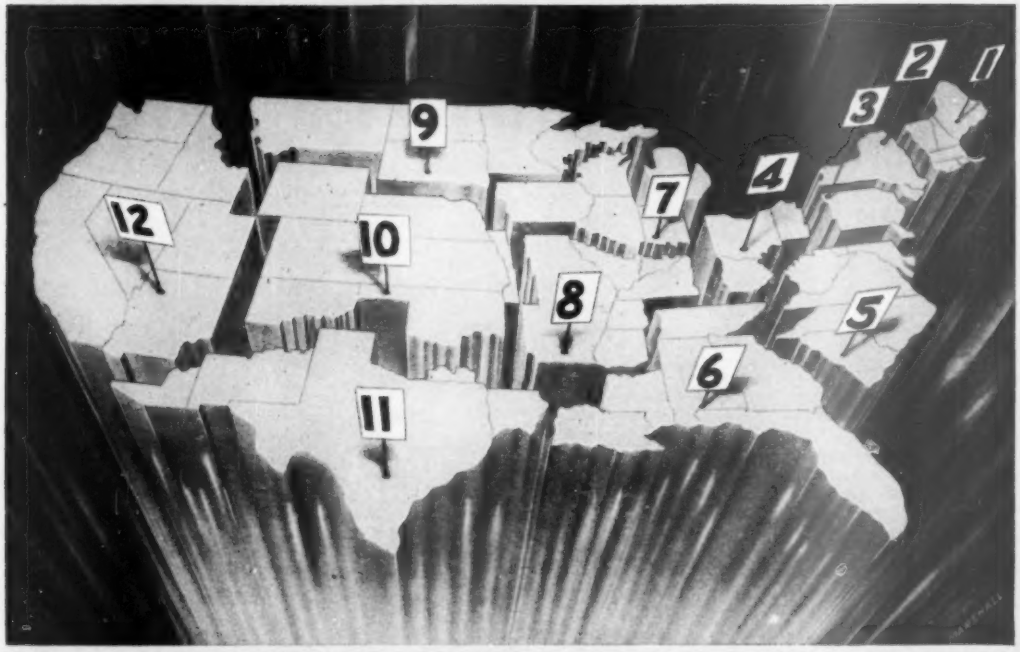
ANACONDA

Advancing the Frontiers of Metals

PRODUCERS OF: Copper, zinc, lead, silver, gold, platinum, cadmium, selenium, vanadium, manganese ore, ferromanganese, uranium.

MANUFACTURERS OF: Electrical wires and cables, copper, brass, bronze, and other copper alloys in such forms as sheet, plate, tube, pipe, rod, wire, forgings, stampings, extrusions, flexible metal hose and tubing.

REGIONAL REPORT



Federal Reserve District	December 1950	November 1951	December 1951	Federal Reserve District	December 1950	November 1951	December 1951
1. Boston	215.7	231.7	232.7	8. St. Louis	263.0	278.2	278.4
2. New York	235.4	246.9	246.1	9. Minneapolis	291.2	302.3	302.7
3. Philadelphia	238.7	248.9	246.0	10. Kansas City	313.4	337.8	343.7
4. Cleveland	245.9	273.7	270.7	11. Dallas	334.7	367.4	375.1
5. Richmond	262.2	288.4	287.3	12. San Francisco	291.2	313.1	314.1
6. Atlanta	294.8	321.4	327.5	U.S. Composite	262.6	- 280.9	281.5
7. Chicago	265.1	278.1	278.7	1941 = 100; adjusted for seasonal December figures preliminary; November revised.			

Nation's Income Inches Upward

Income inched higher in December. The country as a whole gained 0.2%, according to the national composite of BUSINESS WEEK's Regional Income Indexes. This is too small a change to be really significant. And prospects are that incomes will stay fairly level in the next few months.

• **Dallas Gains**—The slight December rise in income was made up of many small changes in the individual regions. Biggest gainers were Dallas, where strong defense activity and good farm income from winter vegetables carried the load; Atlanta, which has been booming since October because of good farm income from cotton and burley tobacco; and Kansas City, which is still recovering to normal levels from the low point caused by the summer's flood. The only two regions to show losses of more than 1% were Philadelphia and Cleveland (BW—Feb.2'52,p58).

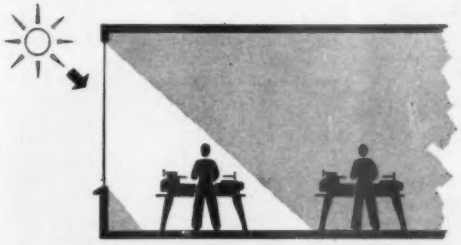
• **Farm Prospects Good**—Most signs point to a good year coming up in farm income, but there are a couple of sore spots. Perhaps most important, continuing drought in the Southwest dust-bowl area is once more endangering the important winter wheat crop. And livestock inventories on Jan. 1, were far higher than a year earlier in the face of short feed supplies. This could mean forced liquidation of herds, with heavy cash losses, particularly to feedlot operators in the Midwest; some of this is now showing up in Region 7 (page 48).

• **Defense Impact Unclear**—Impact of the broad-gauge rescheduling of defense

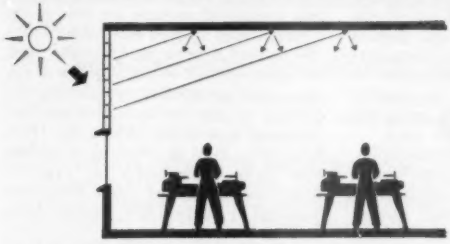
FACTS YOU SHOULD KNOW ABOUT

daylighting your buildings

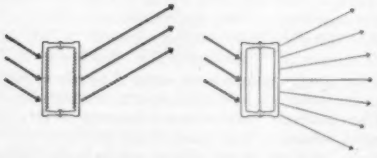
WITH PITTSBURGH CORNING GLASS BLOCKS



QUESTION . . . How can we achieve the control of daylight over wider working areas in our offices and shops?



ANSWER . . . PC Functional Glass Blocks are especially designed to direct or diffuse natural daylight, so that it may be properly controlled for maximum illumination, with comfort. This diagram shows how a room is "daylighted" with PC light-directing glass blocks.



TWO TYPES of PC Functional Glass Blocks are available—light-directing and light-diffusing.

Wherever good daylighting is demanded — in offices, factories, plants, laboratories, public buildings —PC Functional Glass Blocks promote efficiency, reduce eye fatigue, guard workers' well-being.

For, in addition to many purely decorative patterns, PC Glass Blocks are available in *functional* patterns that specifically *direct* or *diffuse* daylight. With PC *Functional* Glass Blocks, the most exacting daylight control and distribution needs can be met without shading. These functional patterns include two principal types. One type controls light by *bending* or *directing* it upward. The other type by *diffusing* it. The light-directing glass blocks, installed above eye level, have internal prisms that project incident daylight above the field of vision and thus distribute illumination with remarkable uniformity throughout the room. The light-diffusing glass blocks break up harsh rays and flood interiors with softly diffused light of high quality.

Our specialists will be glad to consult with you on any problem involving the daylighting of your buildings. Ask for their help. There's no obligation.

Other Facts; PC Glass Blocks cut maintenance costs; assure privacy; eliminate outside noises and distracting views; stop infiltration of dust and grit; reduce cleaning expense; cut heating and air-conditioning costs; are immediately available.

Mail this coupon for complete information

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Pittsburgh 22, Pa.

Please send me a copy of your FREE booklet, "The Mark of a Modern Building—PC Glass Blocks."

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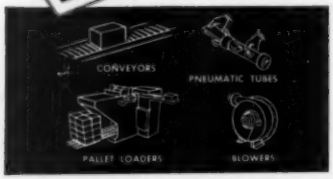
Write for "Case Histories"—gives examples of Lamson know-how.

*Companies that have thoroughly checked handling costs find 30% a conservative average.

LAMSON



contracts (BW—Feb.16'52,p21) on regional income patterns is not yet clear. It will slow down the rise in incomes expected in many defense areas. But that will be offset, at least in part, by a quicker rise in activity in civilian industries, which will have more metal available. But it's still far too early to estimate precisely the relative timing and extent of the two effects.

There has been so much emphasis on New England's depressed industries—textiles, shoes, jewelry, brass products—that it's probably worth stating that the area as a whole is booming. Over the past year there has been a sharp drop in nondurable goods activity—these industries employ about 70,000 less than they did a year ago. But at the same time, durable goods industries have boosted their employment by some 65,000. And a rise in employment in nonmanufacturing industries has more than taken up the slack.

So not only is total nonfarm employment slightly above a year ago for the region as a whole, but the employment shift to the higher-paying durable goods—plus the general rise in wage levels—has resulted in substantially higher total payrolls for the region as a whole.

• **Area Gains**—On that basis, it's fair to say that, over the long run, the changeover from textiles has been a good thing for New England. One reason that textiles started moving south in the first place is that the rise in the area of durable goods industries paying higher wages forced the textile mills, in order to compete for labor, to raise their wage rates. That created a North-South wage differential, which started the migration.

Painful though the process has been, there's no question but that New England is better off today with firms like General Electric, with its high pay scale, than it would be with a lot of textile mills paying lower rates. And the changeover has gone a lot further than most people realize: New England employment today in metal-using industries is about 625,000, as compared with only 245,000 in textiles.

• **States Vary**—Even though employment is approximately unchanged from a year ago for the region as a whole, changes for individual states have varied widely. Thus, factory employment in Connecticut is about 7% above year-ago levels; in Rhode Island, it's 10% below.

• **Jewelry Hard Hit**—Rhode Island is by far the worst off of all the New England states. Textiles is by far its most important industry, and textile employment is 14% below a year ago. Jewelry is the second-biggest industry in the state, and its employment is off 18½%. January employment was close to a record low; many firms are down to a bare nucleus of key workers.

On the other side of the picture, the third-largest industry, machinery manufacturing, has boosted its employment 14% above a year ago.

• **Connecticut Booms**—Connecticut is at the other end of the line; its economy is at a record and steadily rising level. Total employment started up again in late January and early February, after a less-than-seasonal drop early in January. And the outlook is for continued increases. It's the defense industries that are accounting for the increased activity, of course. Fabricated metals and aircraft continue to lead the upward move. Skilled and semiskilled workers are very short.

There have been some scattered layoffs in weaker areas in the state. But the state is small enough so that these are quickly snapped up by defense industries in the stronger communities. Strongest spot in the state is the Hartford area. Pratt & Whitney is adding from 25 to 50 workers a day, many of them from out of the state. Hamilton-Standard is up to 5,000 workers from 2,400 a year ago.

Other strong spots in the state are Bridgeport (which is part of Region 2, the New York Federal Reserve District), New London, and New Haven, in that order. Weaker spots include Norwich, Waterbury, Danbury, and Stamford (the last two in Region 2).

Massachusetts as a whole is in fairly good shape. But its textile and shoe area—including Brockton, Fall River, Lawrence, and Lowell—is very weak.

• **Winter Sports Strong**—The region's winter resort business is very good this year; receipts are running 30% to 40% ahead of any season since 1946-47.

• **Farm Outlook Good**—New England farm income was very good last year; receipts are estimated at 20% above 1950. Even the Maine potato growers did well, with sharply higher prices more than making up for lower production. And the region's farmers are

When your employees come to you about a CREDIT UNION

Here are facts you should know

WHAT IS A CREDIT UNION? Basically a credit union is a group of people who save together and use these savings to provide each other with loans when needed.

WHAT ARE THE BENEFITS TO EMPLOYEES? Credit unions teach thrift and provide a convenient, easy way to save. Last year credit union savings exceeded a billion dollars and paid 3% to 4%. Loan rates are low. There are insurance benefits, too.

WHAT ARE THE BENEFITS TO THE EMPLOYER? Credit union members solve their own money problems. Wage garnishments, pay advances and other management headaches are practically eliminated. Accidents and absenteeism markedly diminish as employees overcome financial worries. The credit union is entirely employee-operated with no obligation to the employer.

HOW MANY CREDIT UNIONS ARE THERE? Credit unions are over 100 years old. More than 15,000 of them are now serving over 6 million people. They have the wholehearted endorsement of government, labor, business and church.

HOW CAN A CREDIT UNION BE ESTABLISHED? Any group of 100 or more people having a common bond such as employment, or church or club membership can start a credit union. You can help start a credit union for your employees. Ask a representative to call. Clip the handy "memo" as a reminder. A credit union will help your business by helping your employees.

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MEMO:

Please remind me to write to Dept. BW-1 Credit Union National Assn., Madison, Wis., for free information regarding a credit union for our employees

CREDIT UNION NATIONAL ASSOCIATION

MADISON, WISCONSIN, U. S. A.—HAMILTON, ONTARIO, CANADA

LET'S TAKE A LOOK AT YOUR ROOF

POST-WINTER ROOF INSPECTION IMPORTANT NOW!

TROUBLE and dollars were saved the George A. Krug Baking Co., Westchester, N. Y., when Tremco Man Stretton suggested a February roof inspection to H. Hank, Plant Engineer.

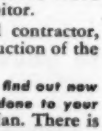
They found much evidence of winter damage. Valleys between roof monitors and parapet had suffered from ice. A large depressed area held water inches deep causing roofing sheeting to rot out. Many coping joints were defective.

A condition which could have led to serious damage to roof and building interior, and ultimately required extensive repairs was caught in time and quickly remedied.

Depressed areas were levelled with a fill mix. Coping joints were raked out and pointed. Monitors were treated with a rust inhibitor.

The work, by a local contractor, was done under the instruction of the trained Tremco Man.

It's a wise precaution to find out now what this last winter has done to your roof. Call in a Tremco Man. There is no obligation for his expert inspection and advice. Write The Tremco Manufacturing Company, Cleveland, Ohio and The Tremco Manufacturing Co., (Canada) Ltd., Toronto.



George A. Stretton
Tremco Man

TREMCO

PRODUCTS AND METHODS FOR BUILDING MAINTENANCE

UM 1015

planning for a year of big production, so, granting favorable weather and continued high prices, income should again be good.

Business conditions in the Great Lakes area continued stable—at a relatively high level, except for Detroit and eastern Michigan. Production in all the region's major industries except autos and their suppliers continues high.

Steel, farm equipment, and defense work generally are all strong. Metal fabricators are also doing well, although there has been a small amount of spotty unemployment, due about half and half to lack of orders and lack of materials. Electronics companies have now got enough defense work to get them back close to full production; employment, up 10% since September, is almost up to the year-ago level. Appliances and electrical machinery have picked up some.

• **Still Slack**—Textiles and apparel, furniture, shoes, and leather goods are all still depressed.

Eastern Michigan is definitely the weak spot in the region. Detroit, Flint, and Grand Rapids have all been certified as labor-surplus areas by the Secretary of Labor. In theory, that means they'll get preferential treatment in the placement of government contracts; there is talk of adding 100,000 jobs in the area. But in any case, no results at all can be expected for at least the next several months.

• **Low Point**—Unemployment in Detroit now is about 105,000; Michigan as a whole, 165,000. It probably won't go much lower. The second quarter should be the low point for civilian-goods makers' allotments of scarce materials. In fact, NPA has boosted second-quarter allotments from their original levels, due partly to pressure from the auto industry and other civilian-goods makers. In any case, the third-quarter allotments should be up.

• **Chicago Slow**—In the Chicago area, employment is, if anything, a little looser. The biggest change is the cancellation of the Fairchild cargo-plane contract by the Air Force, which involved the layoff of about 800 workers. The changeover at the Ford airplane plant from reciprocating to jet engines probably won't have too much impact. Ford says it will mean the layoff of, at most, 5% of its 8,700 workers. But the expected continued rise in employment at the plant will not take place; that will ease or postpone the squeeze anticipated for the time when Chicago area defense contracts really get rolling.

• **Labor Shortages**—Employment continues strong in many other district cities. The Davenport-Rock Island-Moline area continues to report a critical labor shortage. Labor is also tight in Joliet and Springfield. Nonelectrical machinery and ordnance are strong in Joliet; it expects increasing demand for workers. Springfield, whose demand for workers stems largely from machinery manufacturing, is attracting substantial immigration from within a 50-mi to 60-mi. radius. Indianapolis conditions are still very good, but the acute labor shortage has eased.

• **Furniture Lags**—At Rockford, employment in furniture and metals fabrication has declined sharply; unemployment is more than double a year ago. At Ottawa, Ill., the important glass industry is in a slump due to lack of automotive orders. The furniture industry has cut employment in Kankakee because of lagging sales, and Danville's metalworking industries have been forced to curtail because of material shortages.

• **Milwaukee Strong**—In Milwaukee, employment has dropped for the past three months. Most of the layoffs have been in autos and construction. But demand for skilled workers is still greater than supply throughout the area.

Material shortages have been an important factor contributing to a weakening employment picture in Iowa except for Davenport. The present surplus of workers in Des Moines is expected to be absorbed in the next few months. But the outlook in other cities—Dubuque, Fort Dodge, Mason City, Clinton—is for no significant improvement soon.

• **Farmers Did Well**—Conditions were almost uniformly favorable for the region's farmers last year, and farm income rose about 20%. Best-off were the corn-hog and feedlot farmers. The weather was extremely favorable to the district's livestock economy, particularly in Indiana and Illinois. Feedgrain crops in parts of Iowa and Wisconsin suffered from either floods or early frost or both.

Good wheat and soybean crops, particularly in Illinois, contributed handsomely to the region's cash farm income. But the district fruit growers did not do so well—Michigan's peach

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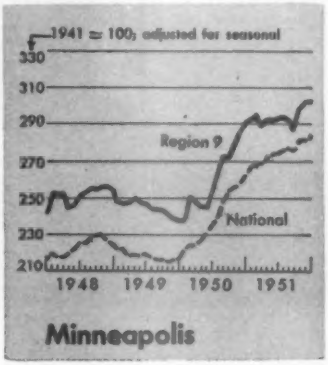
and apple growers, particularly, fared badly.

Livestock inventories on Jan. 1 were sharply higher than a year earlier. If there were ample feed supplies, that would be a good sign. But there aren't. As a result, cattle and hog prices are dropping, and livestock marketings are rising—at a time of year when just the opposite is to be expected. Some feedlot operators are getting back no more than they paid for their original stock.



Things have picked up a little in this region; employment is now a bit more than 1% ahead of a year ago. Food processing and machinery are the biggest gainers among manufacturing industries; textiles, apparel, and furniture all show severe losses.

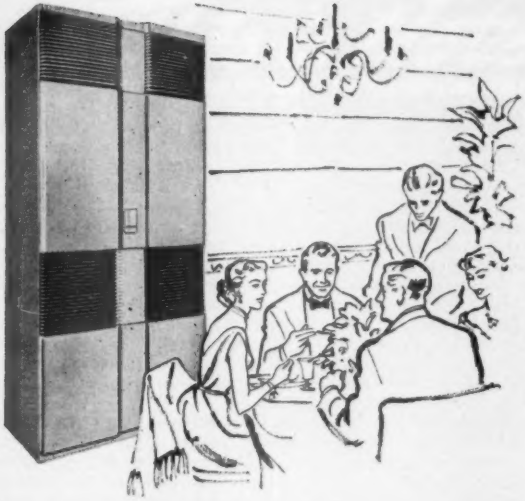
• **Look to Taconite**—From a long-range point of view, the most important current developments in the region are all in the field of minerals. The biggest of these, probably, is the taconite beneficiation program. Right now, the money being spent to build the processing plants is an important income source for the area. And for the long pull, the program means more activity in the Mesabi iron range.

• **Oil May Be Better**—It's still too early to tell how important the discovery of oil in western North Dakota will prove.

Even though oil produced from the Williston Basin never amounts to more than a small fraction of Texas production, it can still provide a big boost for this region's income.

• **Copper, Aluminum**—The other two important mineral developments are both due to the national shortage of critical metals—the RFC-financed low-grade-copper development at the western tip of Michigan's northern peninsula, and the projected Anaconda-Harvey aluminum plant in Montana.

• **Farmers Do Well**—The region's farmers realized a gross income last year 19% above 1950's, and a new record. But higher costs held net below



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Flextite is a unique liquid chemical used to mix cement or cement and sand. The resulting Flextite mortar *stops direct leaks almost instantly, even against hydrostatic pressure* . . . in elevator pits, concrete pipe, dams, reservoirs. Working equally well on concrete, masonry or brick, Flextite mortar is also ideal as a water-resistant plaster coat which converts wet, damp basements, pits, etc., into useful, bone-dry storage or work spaces. So if you're troubled with moisture, seepage or direct leaks, investigate economical, easy-to-use Flextite. For trial offer, mail the coupon now.

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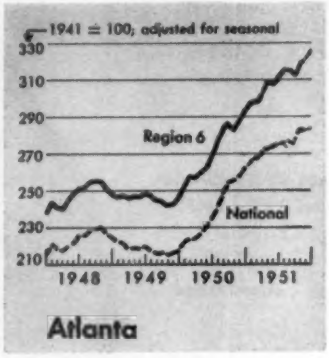
the peak years, 1947 and 1948. It was an especially good year for livestock raisers, because of high prices and abundant feed supplies. But the crop farmers also did well. The spring wheat harvest was at near-record levels, and prices were high. The soybean crop was also good, particularly in Minnesota. But the flax crop (91% of the nation's flax is grown in this region) was hurt a little by wet weather. And the weather also held back the district's big corn crop until it was an easy victim of early frosts, which turned about a third of the crop into unstorable soft corn.

So farmers held back livestock from market in order to feed the corn before it spoiled. As a result, livestock on farms in the region on Jan. 1 was worth more than $2-billion, more than 25% ahead of a year ago. This poses a major problem for livestock farmers because available supplies of feed grain are uncomfortably low. This may mean a squeeze on the livestock men before this year's corn crop matures, resulting in forced sales.

Unusually heavy snow cover this winter promises ample supplies of subsoil moisture for crops this summer, a good portent for the region's 1952 farm income.



The over-all economy of this region seems to have stabilized at a fairly high level. The textile industry continues to be the weak spot, with prices well below ceilings; employment is down some from a year ago, and the average work week is considerably shorter, so payrolls are down sharply. The region's textile men are very unhappy over the government decision to channel contracts to designated distress areas. They say their mills are as badly in need of work as New England's, even though none of the region's major cities is so dependent on textiles as to produce a critical unemployment rating.

• **Defense Opens Jobs**—Nevertheless, over-all employment in the region as a whole is above year-ago levels. Biggest contributors are the defense industries, of course. Employment at the Lockheed plant, at Marietta, Ga., is now about 11,000; it has stabilized there temporarily, due to the new defense production schedule. Gradual hiring will resume late this spring and continue until the work force reaches 25,000.

This is lower than the original goal of about 30,000. But that's probably a good thing for the area, for two reasons: (1) It stretches out peak production over a longer period of time; and (2) it eases a squeeze on housing in the Atlanta-Marietta area.

Other healthy industries in the region include Birmingham's steel mills and the paper, lumber, and chemicals fields.

• **Oil Boom**—Perhaps the strongest of the region's states is Alabama. Big news there is the discovery of oil in the southeastern part of the state. The town of Brewton, nearest to the strike, is booming. Oil exploration is also beginning to fan out into southwestern Alabama and northwestern Florida.

• **Georgia Strong**—Georgia is also strong, over-all. Augusta is the region's boomingest city still. And Atlanta is getting the benefit of the Marietta expansion. One weak spot in Atlanta is the auto assembly plants. Employment is down from 7,700 a year ago to 5,700 now. But the laid-off workers find no trouble getting jobs at nearby Marietta.

Conditions in Florida are somewhat mixed. Miami and southern Florida report a better than average tourist season. The labor market is tight in Jacksonville and Tallahassee, and Pensacola expects a shot in the arm from Chemstrand's new $55-millon plant—3,000 will be needed for construction, and the permanent payroll when the plant gets into operation in 1953 will be $7-million a year. But Tampa is still in the doldrums.

Eastern Tennessee is holding steady, with heavy activity at the government plants at Oak Ridge and Tullahoma and the construction of TVA steam plants balancing the slump in textiles.

• **Louisiana Steady**—Louisiana is barely holding steady, with defense activity not yet strong enough to make up entirely for weakness in food processing, lumber, and construction. Mississippi, relatively, is still the weakest part of the region economically.

• **Cotton Lifts Farmers**—Last year finally turned out to be a good one for the region's farmers, but it took a strong upsurge in the last quarter to put it over the top. The biggest payoff came from a cotton crop 50% larger than 1950's. Tennessee's burley growers and Louisiana's rice growers also did very well.

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National's own mines supply essential coal for its steel-making needs

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STRAN-STEEL DIVISION. Unit of Great Lakes Steel Corporation. Plants at Ecorse, Michigan, and Terre Haute, Indiana. Exclusive manufacturer of world-famed Quonset buildings and Stran-Steel nailable framing.

HANNA IRON ORE COMPANY, Cleveland, Ohio. Produces ore from extensive holdings in Great Lakes region. National Steel is also participating in the development of new Labrador-Quebec iron ore fields.

THE HANNA FURNACE CORPORATION. Blast furnace division located in Buffalo, New York.

NATIONAL STEEL PRODUCTS COMPANY, Houston, Texas. Recently erected warehouse, a Quonset building supplied by the Stran-Steel Division, covers 308,425 square feet. Provides facilities for distribution of steel products throughout Southwest.

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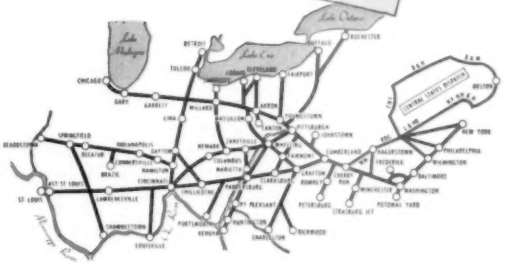

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"If you look at the construction programs of other steel companies, you will see we are doing well by comparison."

ALBERT J. BERDIS:

The Big Man in Steel's Big New Plant

Early in May production will start at Morrisville, Pa., in the largest steel mill ever constructed at one time in the world. The mill is the Fairless Works, named in honor of Benjamin F. Fairless, president of the biggest steel company in the world.

Down in Morrisville, though, there is another name that means a lot more to the community. The name is Berdis, Albert J. Berdis. He's the boss of the mill, the man whose job it will be to get out the production from this giant steelmaking unit with an annual capacity of 1.8-million tons of ingots and a tremendous variety of finished steel products.

• **In One Year**—When Berdis was appointed general superintendent in January, 1951, the Fairless giant was nothing but a mill site. Ground-breaking didn't take place until Mar. 1 last year. But in the past 12 months, construction has gone ahead fast enough to guarantee, practically, that operations will start in another 60 days.

Berdis started to watch the progress as a commuter from Pittsburgh. Now he is based at the works in a temporary building—a one-story, narrow structure with a center corridor and offices on both sides. When the Fairless Works is completed, Berdis will be running it from a spanking new administration building. "But," he says, "that will be the last building put up here."

• **An Age Is Born**—In his new assignment, Berdis is practically reliving his early days in steelmaking. That was in 1935—the beginning of an era for steel. Instrumentation was taking hold in the industry, and the hand mill that had been used since the days of the old ironmasters was just being displaced by the continuous rolling mill—a development that made one of the most fundamental changes of this century in steel production. Berdis was lucky enough to get in on the ground floor. He grew up with the new steel age.

Industry has been a part of Berdis' life from the start. He didn't grow up in the legendary log-cabin background of the standard successful businessman, but in an industrial region. He was born 43 years ago at Whiting, Ind., in the shadow of giant oil refineries and with the Gary and Chi-

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"You have to have an edge, and we will have it for maybe 10 years."

cago steel mills just over the horizon.

• **The First Rung**—Berdis' association with U. S. Steel began when he was a freshman in electrical engineering at Purdue University. He was one of four first-year students selected by E. E. Moore, now U. S. Steel's administrative vice-president for industrial relations, to work during vacations and thus get acquainted with the company. He had already been working as an electrical repairman.

Midway through college, Berdis ran out of money. But his boss, S. J. Jenks, now vice-president for manufacturing of U. S. Steel, thought he should finish school, baited him with a weekend job at the mill to help out. Berdis took the offer. Each week he would finish up his classes on Friday, then hitch-hike home to his job at the plant.

• **Milestone**—Berdis considers this one of the most significant periods of his life. One of the old-timers out at Gary remembers him in those times. "He was working with me on them pyrometers," he recalls. Already, Berdis was getting valuable training in the instruments that were to become so important in steel production.

When Berdis got his diploma, he headed back to Gary to become a full-time employee at the tin mill. While he had been finishing up his school, however, Steve Jenks had moved on to Pittsburgh. He had Berdis high on his mind and sent him a telegram asking him to report for work in the engineering department at Pittsburgh at $200 a month. To Berdis, that sounded like: (1) a great opportunity and (2) a lot of money. He was making $84 a month then at Gary.

• **The Switchover**—When Berdis came to Pittsburgh, Big Steel was in about as much of a frenzy as any giant corporation can get. By 1935 everyone in the industry realized that you had to install continuous rolling mills if you were going to compete. Several other companies already had got the jump on the industry with the new methods. So U. S. Steel decided to go ahead and order five of the new type of mills, even before the company knew where it would put them.

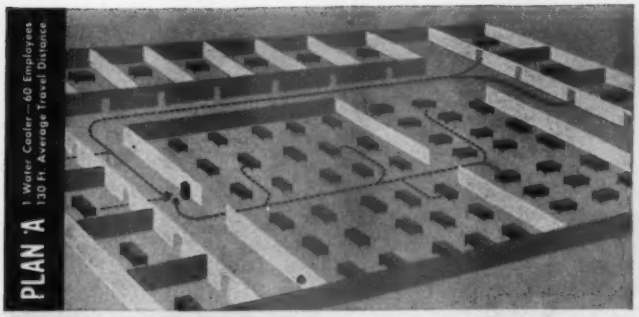
While the equipment was still being made, U. S. Steel began planning what to do with them. Two of the new units went into the brand-new Irvin Works, being built in the Pittsburgh district. Two others were earmarked for Tennessee Coal & Iron at Birmingham, and the last one went to Columbia Steel on the West Coast.

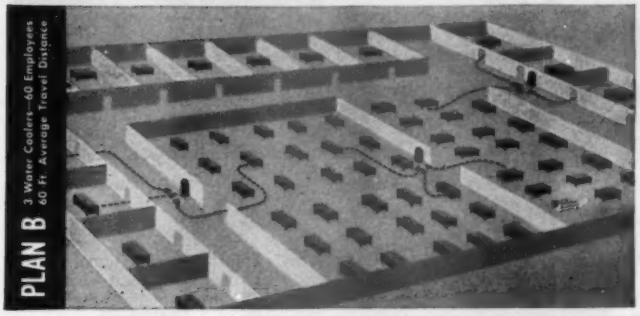
• **New Plants**—Berdis' assignment when he came to Pittsburgh in 1935 was to work on design engineering of these new plants. He tackled the layouts, drawings, and specifications, and also worked with the purchasing department.

He didn't work on the sites in those cases—as he does at the Fairless Works—but he got a full picture of what it takes to get a new plant going.

It was not long after this that the pattern of Berdis' career with U. S. Steel changed again. He decided he wanted to be on the operating side of the business, not be tied down to a desk. And again he got a break. First, he was appointed assistant to the general superintendent of the mill for which he had been the chief design engineer and later chief engineer. After a while, he was handed an even bigger chunk of responsibility. He was made superintendent of the Vandergrift plant, outside Pittsburgh.

"That was the most wonderful period of my life," Berdis says today,





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New General Electric Work Center Plan for Water Cooler Placement shows exactly how much can be saved by a more efficient drinking water layout

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A new study by General Electric makes it now possible for you to check your own drinking facilities quickly and easily. You can see for yourself whether additional units will save you enough to make their purchase worthwhile.

Fill out the coupon below and send for your free copy of the booklet, "G-E Work Center Plan for Water Cooler Placement." It contains all the information you need to find the most economical plan for your business establishment.

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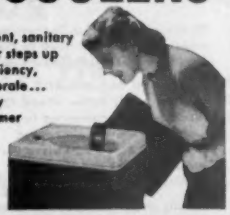

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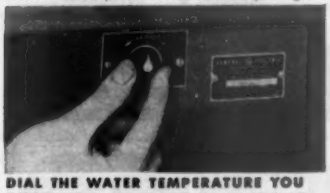

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"There's a lot of space in between those buildings for further expansion."

because it gave him a chance to work on all kinds of problems.

• **Fitting In**—It's a general rule that the staff at any plant isn't going to like the boss sent out from Pittsburgh. But men who worked at Vandergrift with Berdis say that he got in the groove in a hurry. It wasn't very long before he was a big wheel in the community. He was active in the Boy Scouts, the church, and all sorts of things that brought him in close contact with the men working for him and their families.

• **Friendly and Tough**—Berdis' friendly manner makes it easy for him to get along with people. But as deep as his friendliness is his firmness. He's a tough administrator and doesn't hold back if he is not satisfied with a job that is being done.

He is typical of the new-style steel man—who has never thought of steel-making except in terms of high-speed equipment and big tonnage output. His closest resemblance to the old-time bosses is his strong belief in the free competitive enterprise system. Berdis is also fully aware of the human relations problems of business, from his dealings with men in the shop and all the other publics of a giant corporation.

• **Warming Up**—Berdis is already assembling the central core of personnel at Fairless. There are about 300 of the supervisory staff now on the job—out of a future total of 450. It's a little early to bring them in on a new plant setup. But Berdis wants them knit together and well-trained as a team. They came in from all over the U. S. Steel map.

A program of management training is now under way to prepare the managers and supervisors for the time when Fairless will really be a going concern. Men are attending classes in accounting, finance, reports, and labor relations. The school house is a beautiful old farmhouse located right beside the river. These are not formal classes. They are discussion groups with leaders, usually from Fairless itself.

• **Too Optimistic**—The progress made on the new mill doesn't satisfy Berdis. He had expected to be in operation by this time, but he admits that it looks now as if the first production will not come until early May. Why? Berdis lists five reasons: (1) The original schedule was too optimistic; (2) there are not enough engineers available to get the job rolling on schedule; (3) the working force is not so big as planned—about 3,000 short; (4) difficulty in getting occasional pieces of material hold up completion of some phases; (5) the weather since last October has not been good for excavating or pouring concrete.

• **On the Other Hand**—Berdis also looks at the building progress another way, and then it appears to be more satisfactory. "If you look at the construction programs of other steel companies, you will see that we are doing well by comparison. For example, we have gained a whole year on one company's program of adding a new open-hearth mill."

U. S. Steel is constructing this new plant with the latest of equipment, process, and design. Berdis says you can't start even with established competition. "You have to have an edge, and we will have it for maybe 10 years."

When visitors look at the drawing of the plant layout on his office wall, they wonder at the big areas of space between the units. But Berdis sees 10 blast furnaces going up alongside the two now being built. With that, he sees more open hearths, more coke ovens, more of everything.

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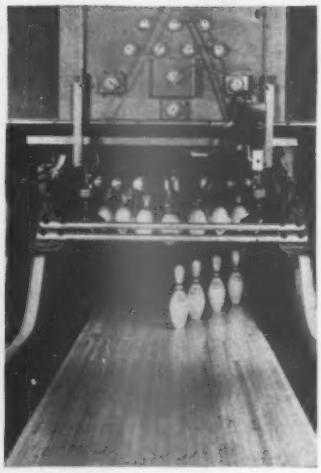

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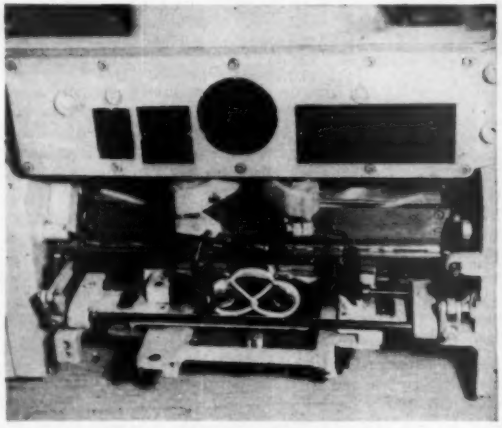


PRETZEL BENDER, answer to the old saw that man would never invent a machine to tie a pretzel, and . . .

COOLING FANS for tanks, which AMF produces for defense at one of its biggest plants, in Buffalo, N. Y.

Bending the Pretzel Is Not Enough

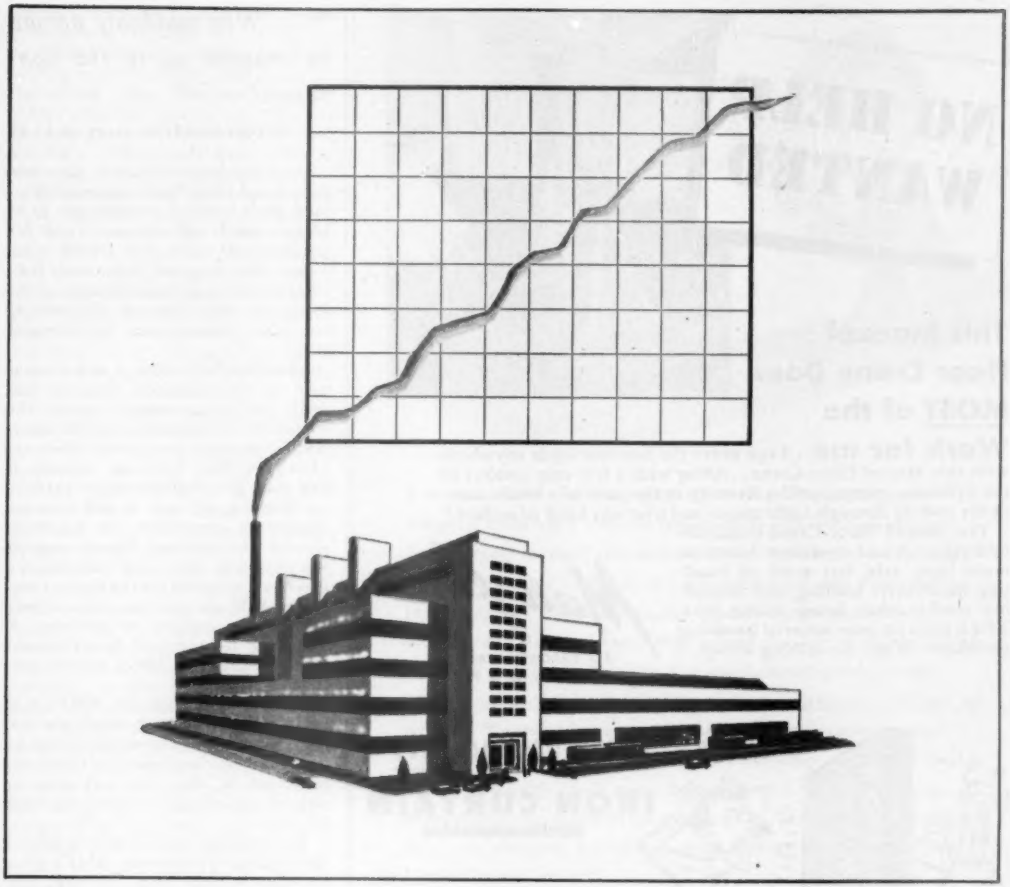
"Shoemaker, stick to your last," is an old piece of American business advice. For most of its 50 years American Machine & Foundry Co. has been content to do just that, shaping its course as a designer and maker of machines for the tobacco, apparel, and baking industries.

Now the world's largest manufacturer of cigarette- and cigar-making equipment, AMF is cutting a new pattern—not only expanding its purely mechanical products, but branching out into consumer lines with established retail outlets. Its aim: to level out the erratic earnings in the machinery end of the business.

• **Into the Fold**—For years, AMF depended mostly on royalties it got from leasing out its cigar-making and other equipment to balance the violent ups and downs that seesaw the machinery and machine tool business. But since World War II ended, AMF has been buying firms that make a long list of products, from bicycles to motors.

Just last week AMF announced it had signed an option to acquire all the assets of Leland Electric Co., a major producer of electric motors. It will give AMF common stock in return.

Early in February it took on Thompson-Bremer & Co., a Chicago manufacturer of industrial fasteners and electric terminals (used in autos, refrigerators, radios, washing machines). In 1951, the year AMF's diversification



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LOOK at any chart recording the amazing industrial development of the modern Southland. You'll notice that production is UP, industrial construction is UP, plant enlargements are UP.

Construction contracts in the South last year totaled an all-time high of $5½ *billion*. Industrial contracts of more than $2¼ *billion* were double those of the previous year. Expansion in the Southland's chemical and metals industries alone reached multi-million dollar proportions in the year just past.

All signs point to still more business activity, still greater industrial growth and opportunities, in the Southland served by the Southern Railway System. But why not see for yourself?...

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City_____ Zone_____ State_____

". . . Why suddenly decide to snuggle up to the consumer? . . ."

DIVERSIFICATION starts on p. 60

plans really began to hatch, the company bought three new concerns: Cleveland Welding Co., second-largest U. S. bicycle maker (Roadmaster) and big producer of truck and tractor rims; Junior Toy Corp. of Hammond, Ind., biggest American manufacturer of velocipedes; and Sterling Engineering Co., Inc., manufacturer of electrical relays.

• **Diversify**—Why does a major company in the machinery business suddenly decide to snuggle up to the consumer? The man behind the move, AMF's president and board chairman, Morehead (Pat) Patterson, explains it this way. The trouble with the machinery business, he says, is that you are continually dependent on somebody else for your business. There's nothing you can do to boost sales. Besides, the development period for the kinds of machines AMF designs and makes is long and costly, produces no revenue. A sound way to balance all this, Patterson feels is by getting closer to the consumer.

• **A Wise Move**—Actually, AMF's ventures into diversification aren't random. All the products have certain things in common: They're all made of metal and fabricated by the same job shop or welding method the company has used for years.

Results so far have more than proved the wisdom of the move. AMF's gross has risen to more than five times that of its best prewar year—from $5,771,613 in 1940 to a high of $27,517,000 in 1950. The 1951 results are expected to double that. The company has a backlog of $106-million (about 60% of this consists of radar installations, torpedoes, gun loaders, and other items for the military). From its single factory in Brooklyn, AMF has expanded to 13 plants, including subsidiaries, across the country.

• **Narrow Field**—While AMF's newest acquisitions are its first venture into the consumer field, diversification has been on its mind for most of its 50 years of corporate existence. Founded in 1900, the company couldn't have been born in a more auspicious period. The country was rich and confident. And the age of mass production was just eight years away.

AMF started out in an extremely narrow field, developing and producing machines for the tobacco industry. Its first products were a cheroot rolling machine; a cigar bunch wrapper; a machine that weighed, labeled, and

stamped smoking tobacco, and a cigarette-making machine.

While AMF was perfecting and producing cigarette-making equipment, International Cigar Machinery Co., an AMF subsidiary formed in 1901, was putting its heart into a cigar-making machine. Today more than 5,000 of them are on lease to the industry.

• **Broadening**—AMF first stuck its nose into relatively unknown territory in 1924. It entered the bakery equipment field with the first bread wrapper that automatically adjusted the size of the wrapper to the size of the loaf.

This still limited AMF to a pretty narrow field. So in 1936 it branched out further—acquiring and improving a slip-stitching machine, which it offered to the apparel industry. This gave AMF a broad new market. But it still wanted more elbowroom.

So in 1948 the company reached out again—this time into electronics.

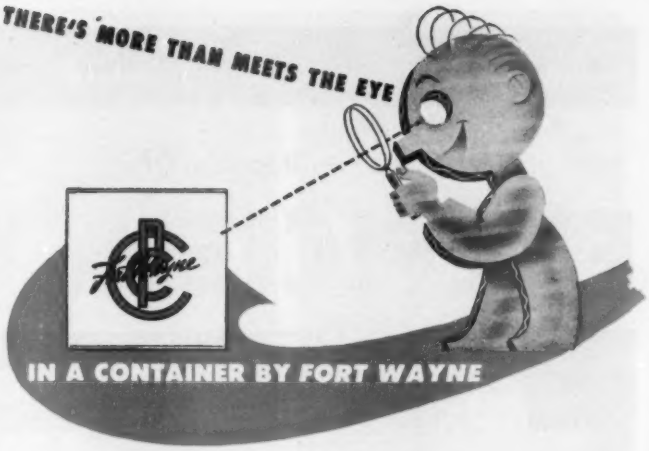
AMF made its debut in this field when it bought the Transducer Corp., producer of electronic and ultrasonic trainers for the Air Force.

• **Inventive Turn**—All these products are the work of AMF's research staff, which is constantly developing new kinds of machines and redesigning and improving the old ones. The company's newest division, the chemical division, is now developing what it calls MTS—Microflake Tobacco Strip—a machine that virtually eliminates waste in cigarette and cigar making. It takes pure tobacco, which cannot now be processed—tobacco dust from the stemmeries, shorts or leaf scrap—cleans it of impurities, and binds it together with a water soluble gum, so it can be mixed with regular cigarette tobacco.

After 10 years of development, AMF has happily taken the last bug out of its latest, and probably most fabulous, machine—the automatic pinspotter, a device that may replace pinboys in the nation's bowling alleys. The pinspotter is a fully automatic unit for setting the pins, returning the ball, and doing all the pit services now done by hand.

Still other AFM products run the gamut from a fantastic machine to tie pretzels to the DeWalt radial saws for high-speed cutting of wood, metal, or plastics.

• **Challenging**—This sort of broadening development has brought AMF its share of problems. The big problem now is handling sales and distribution of its consumer products—a brand-new challenge for the machine maker. It's easy to see that entirely different techniques must be used for the machinery and the consumer goods products. To cope with the problem, AMF is keeping the two operations entirely separate.



You can see and feel the quality in your Fort Wayne corrugated shipping containers. You can inspect their accurate construction detail, recognize their specification-perfect uniformity, watch their superb performance. But there's still more there than meets the eye... Into every Fort Wayne corrugated container goes specialized scientific and technical knowledge gained through 44 solid years of container making. Built into it is research, development, a vast understanding of shipping problems and requirements. And back of it is Fort Wayne's laboratory control of production and quality—rigid scientific control of raw materials and every step in fabrication. And there's much, much more. But you get the idea. Fort Wayne containers are an eyeful of economy and quality you can *see*—and they bring you scores of plus-advantages that never meet the eye!

CORRUGATED FIBRE BOXES
CORRUGATED PAPER PRODUCTS

Fort Wayne Corrugated Paper Company

GENERAL OFFICES • FORT WAYNE 1, INDIANA

Plants:
Rochester, New York
Chicago, Illinois
Pittsburgh, Pennsylvania
Hartford City, Indiana

Mill:
Vincennes, Indiana

Affiliate:
Southern Paperboard Corporation
Port Wentworth, Georgia

Sales Offices:
Chicago, Ill.
Jackson, Mich.
Buffalo, N.Y.
Jamestown, N.Y.
NewYork, N.Y.
Rochester, N.Y.
Syracuse, N. Y.
Utica, N.Y.
Akron, Ohio
Cincinnati, Ohio
Cleveland, Ohio
Dayton, Ohio
Lima, Ohio
Hartford City, Ind.
Indianapolis, Ind.
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Cut Costs — Step Up Office

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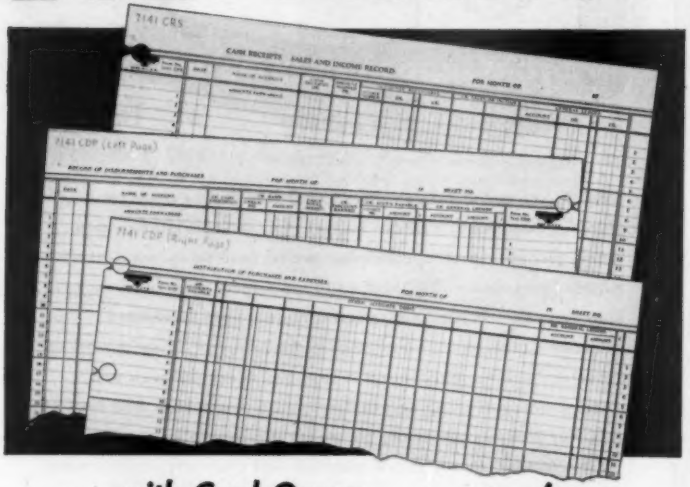

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OREGON Douglas McKay

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The Governors Take the Adman's Cake

Sperry Flour Co. knew its 100th birthday was coming, so it baked a cake. But what good was a cake unless its picture got in the papers? None, of course, but Sperry's promotion boys solved that.

Sperry, a General Mills division that serves seven western states, quickly lined up the governors of its constituent states to do a spot of eating.

Next question: to pick out someone to ladle out the cake—preferably someone prettier than the average governor. That was easy, too—just run a beauty contest. The Stockton Chamber of Commerce graciously consented to do the picking, since the eat-up girl was to be a Stocktonian. That's because Austin Sperry started his first mill in Stockton in 1852.

In due season, the chamber picked Marilyn Graffis, a 20-year-old music major at the College of the Pacific. Marilyn, relabeled Miss Sperry, was shipped off to San Francisco to have her hair and wardrobe done over. Then she, along with Sperry president E. O. Boyer and assorted other personnel, embarked in a General Mills plane to feed the starving governors. They averaged about a state a day.

The bait was a sponge-type cake topped with whipped cream and sprinkled with something improbably called coffee crunch icing.

The gubernatorial gourmets reacted variously. Douglas McKay of Oregon seemed to suspect that the icing was cod-liver oil. Maybe he just didn't dare smile—Mrs. McKay is a champion cake whipper-upper in her own right.

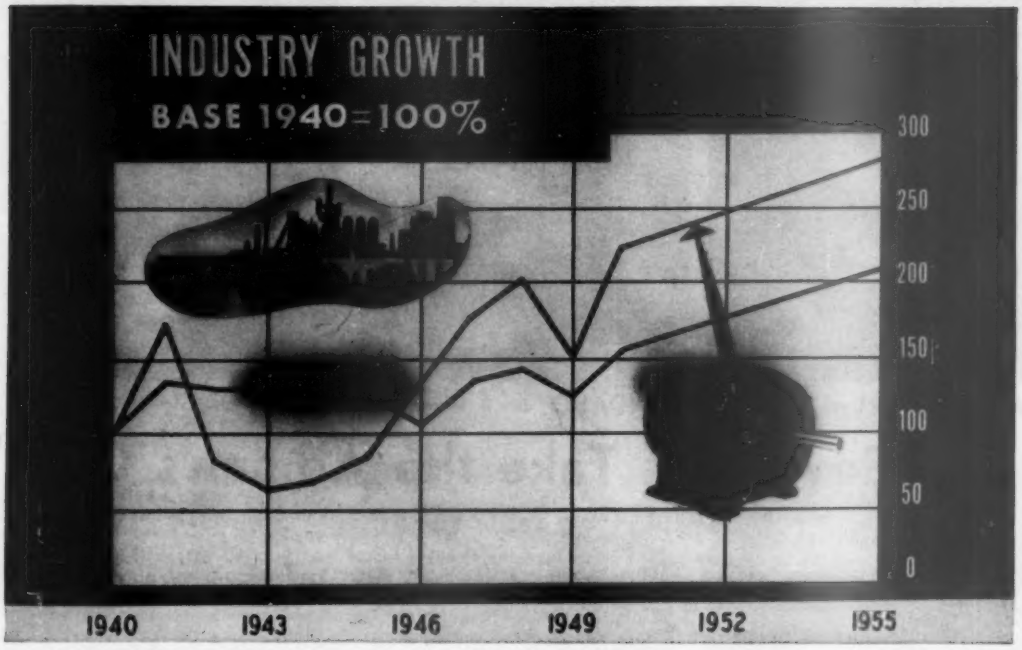
In Arizona, the promotionites practically had a day off. Gov. Howard Pyle, veteran of the publicity wars, took over himself, telling all hands what to do.

Presidential candidate Earl Warren of California got his bite a week late, on account of he was away.

Promotions like this are nothing new for Sperry Flour. Once it ran a talent search for a rooster, whose superspecial crow could be embedded in the company's morning newscast.

CALIFORNIA Earl Warren

ALONE AT LAST. Worn out by spoon-feeding the great, Miss Sperry dozes off.



"OUR INDUSTRY is a better than average customer," Westinghouse tells steel men. "It's expanding more than most."

How to Buy Steel Like a Gentleman

"OUR COMPANY will need more and more steel." Steel capacity is in millions of tons.

In the midst of a steel scramble, Westinghouse Electric Corp. is bravely switching its buying tactics. It's dropping the old catch-as-catch-can methods of ferreting out a carload of steel here, begging a carload there, haggling and scrabbling to put together its big supply for the year. Now it's trying to put steel buying, short-range and long-range, on an orderly basis.

"It's in your interest to take care of us now," Westinghouse, in effect, is telling the steel mills, "because we can help you over the lean years whenever they come."

This isn't the restricted bilateral "a break for a break" kind of back-scratching normal between companies that buy goods from each other. Westinghouse wants to get away from that kind of reciprocity. This is an industrywide program to help Westinghouse know where its increasing needs for steel will be filled, to help the steel mills know how much they can expect to sell to Westinghouse, say, 10 years hence.

• **Unpublicized**—Up to now, Westinghouse has been quiet about its policy. For months, though, its executives have

"TOP PER CAPITA SALES OF 7up ARE IN RURAL AREAS"

"THE rural market has been highly responsive to our promotional efforts," says Ben H. Wells, Vice President in charge of sales and advertising of The Seven-Up Company. "Seven-Up carries its message directly to the rural trade through four-color page advertisements in Country Gentleman.

"The 7-Up slogan 'the all-family drink' is particularly suitable. Farmers have large families. Most of the members work hard and play hard and consequently like to 'fresh up' often. These families do a lot of home entertaining or have frequent informal gatherings at which refreshments are served. They also have sizeable refrigerators or coolers in which a quantity of 7-Up can be kept chilled. Buying by the carton or case is thus encouraged."

Country Gentleman is "part of the family" in 2,300,000 rural homes. Its circulation is concentrated among the top-half farm families who earn 90% of our entire farm income. Excellent customers not only for farm equipment, but for soft drinks, groceries, toiletries, textiles, appliances . . . every product for better living.

Dealers coast-to-coast say: *"Country Gentleman helps me most to sell my best rural customers."* And business places more advertising here than in any other farm magazine.

"Country Gentleman is edited for America's most closely knit family group," says Trudy Dye, Women's Editor. "The farm family works together, and all its living is a family affair. In this new age of greater farm prosperity and leisure, family life is even more important. We are constantly increasing emphasis on better living — in the home and in the farm family's widespread outside interests."

Country Gentleman

. . . now including COUNTRY LIVING, the first magazine-within-a-magazine devoted to better living for every member of the rural family.

FOR
OLD TIME VALUES
IN
MODERN
HANDLING
EQUIPMENT
You've got to
Buy CLARK

★
MOTOR—Designed for **CLARK** for the specific power requirements of industrial use. Fuses protect both motor and circuits against damage.
★
STEERING AXLE—Pivoted—all four wheels **always** on the ground: better traction, better steering, utmost stability.
★
DRIVE AXLE BY CLARK—Regular Hiway-Truck-Type Clark axle—the best that can be said of any axle.
★
AUTOMATIC ACCELERATION as employed on **CLARK** Electrics takes out the human error—**no jerking**—
★
DIRECTIONAL LEVER on **STEERING COLUMN**—greatly simplifies operation, increases maneuvering speed and fast getaway.
★
BRAKES—HYDRAULIC—Smooth, positive action for safe operation—ruggedly built for long-lived efficiency.

To meet the varying needs of users, CLARK electric fork-truck motors are designed to operate efficiently on any power supply from 30 to 48 volts. CLARK'S standard power supply is 36 volts. These trucks are designed with perfect balance among all components and incorporate a new method of motor winding which provides more efficiency than has ever been offered in an industrial truck motor . . . There have been many technical changes from year to year in CLARK machines, but there has never been any change in CLARK'S 30-year purpose to give you the best VALUE your money can buy—and there never will be.

CLARK ELECTRIC AND GAS POWERED FORK TRUCKS
AND POWERED HAND TRUCKS · INDUSTRIAL TOWING TRACTORS

INDUSTRIAL TRUCK DIVISION • CLARK EQUIPMENT COMPANY • BATTLE CREEK 42, MICHIGAN
Please send: ☐ Material Handling News ☐ Condensed Catalog ☐ Basic Facts Book. ☐ Have Representative Call.
Name_____
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Street_____
City_____ Zone____ State_____
NATIONALIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

". . . committed to continuing expansion, an increasing appetite for steel . . ."

STEEL starts on p. 66

been making elaborate presentations to steel men. Now it's about to drive its point home with a pamphlet telling the steel industry why it ought to take better care of electrical manufacturers in general, and of Westinghouse in particular.

The clincher in Westinghouse's case is this: The company stands ready to back up its forecasts of steel needs with a formal statement of policy over the signature of Gwilym Price, the company's chairman and president. By morally binding future managements, that takes the approach out of the "here today" category, Westinghouse believes.

Westinghouse still doesn't sign a firm contract for steel beyond the current year, but it's ready to show any steel company what its sales chances are for 10 years to come . . . and why that steel company should play ball right now.

Westinghouse proposes to buy steel from each company in bad times in proportion to what it gets in times of short supply.

• **Behind the Idea**—Westinghouse is driven by two motives for a long-range policy:

• It is committed to continuing expansion, which means an increasing appetite for steel. Right after the war Westinghouse spent $132-million for expansion; it's now spending $300-million more. In 1950 (chart, page 66), the company bought 364,000 tons of steel; in 1960 it figures it'll need 700,000 tons.

• It would like to get away from the rough-and-tumble school of steel buying and set up an orderly system dovetailing with its own expansion.

Westinghouse hopes its campaign in steel company offices will show big results in the next quarter. It thinks there have been some dividends already. The company has managed to increase its tonnage from some suppliers; it hasn't had to buy anywhere near so much conversion steel.

• **Under Pressure**—Need for a dependable way of procuring steel has been getting keener ever since World War II. For five years Westinghouse has been restricted by its inability to buy all the steel it wanted in certain types. Since 1946, the company has spent more than $100-million in buying, transporting, processing, and adapting makeshift conversion steel to the kind it needed.

Meanwhile, Westinghouse lost its

market position in refrigerators. Its competitive edge was blunted all along the line by limitations of quantity and quality.

• **Hard to Reconcile**—Even more vital to Westinghouse was the conflict between a steel shortage and the company's own expansion plans. Gwilym Price has said repeatedly that Westinghouse will build capacity to meet the peak demands of its customers, even if that means the company has plants standing idle at times.

All through the postwar boom, it looked increasingly reckless to build that much plant if the company couldn't buy enough steel to keep it producing. With more business than they could handle, the steelmakers were allocating their production on the basis of historical purchasing patterns. On that basis, fast-growing Westinghouse didn't fare well.

When Westinghouse first tried to talk steel producers into giving it a better break, the steel people said pretty bluntly that the company was historically something less than an ideal customer. There had been just enough indecision and ups-and-downs in its buying record to justify the steel men's retort:

"Sure, you're sweet-talking us now—but will you order in December as you do in May?"

• **Top-Level Stuff**—Price and his aides decided to find some way to impress steel men with their own rosy view of the future.

They started with the assumption that Westinghouse had to make itself as desirable as possible as a steel customer. They made a thorough study of the marketing situation from the steelmakers' point of view—what would be the ideal marketing area for each potential Westinghouse supplier?

With that study in hand, Westinghouse tried to fit each of its steel-consuming divisions, geographically, into the ideal steel marketing areas. This can get pretty complex, for there are a lot of variables.

For example, a Westinghouse plant might use both hot-rolled carbon sheet and electrical sheet. A given steel mill might produce both. But each might be so situated that the Westinghouse plant might be a welcome customer for electrical sheet, but of indifferent interest as a customer for hot-rolled carbon sheet.

• **Adapt and Adopt**—The ideal pattern then had to be adapted to the special needs of Westinghouse purchasing men, providing for multiple suppliers and weighing freight costs against other factors.

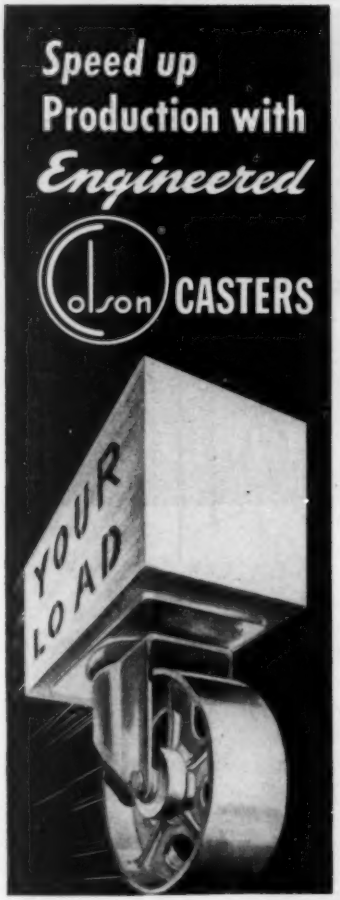
The final step was to get top-level approval of the pattern. This gave continuing effect to the policy, regardless of future personnel changes.

Perhaps this lot of Wolverine tube is intended for you. Here's another lot over here destined for a different purpose. And so—day after day—an endless flow of Wolverine top-quality tubing is being fed to various industries—each lot of tubing made to meet certain specifications.

Wolverine has a size, temper and alloy to satisfy every practical need wherever tubing is required, to convey water, oil, chemicals or gases.

There IS a difference in tubing; and there is a difference, too, in how you use it. The right quality in the right diameter and wall thickness of the right alloy always results in highest efficiency.

As producers of seamless, nonferrous tube exclusively for over 35 years, we possess a background of inestimable value to you. We are in a position to help you in the selection of the proper tube for any specific purpose. WOLVERINE TUBE DIVISION—Calumet & Hecla Consolidated Copper Company, Inc., *producers of quality controlled tubing for refrigeration, processing industries, plumbing, heating and air-conditioning, automotive and aviation*—1469 Central Avenue, Detroit 9, Michigan.



Today's terrific tempo calls for speed and efficiency in materials-handling. Rolling stock that doesn't roll wastes time, manhours and money.

Let a COLSON engineer show you how you can modernize your rolling equipment easily, and at very low cost, with precision-built, easy-roll, easy-swivel COLSON Casters. Write us or consult the "yellow pages" (under "Casters" or "Trucks-Industrial") for the COLSON office near you.

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ELYRIA, OHIO

Please send free 68 page catalog—"Colson Casters"

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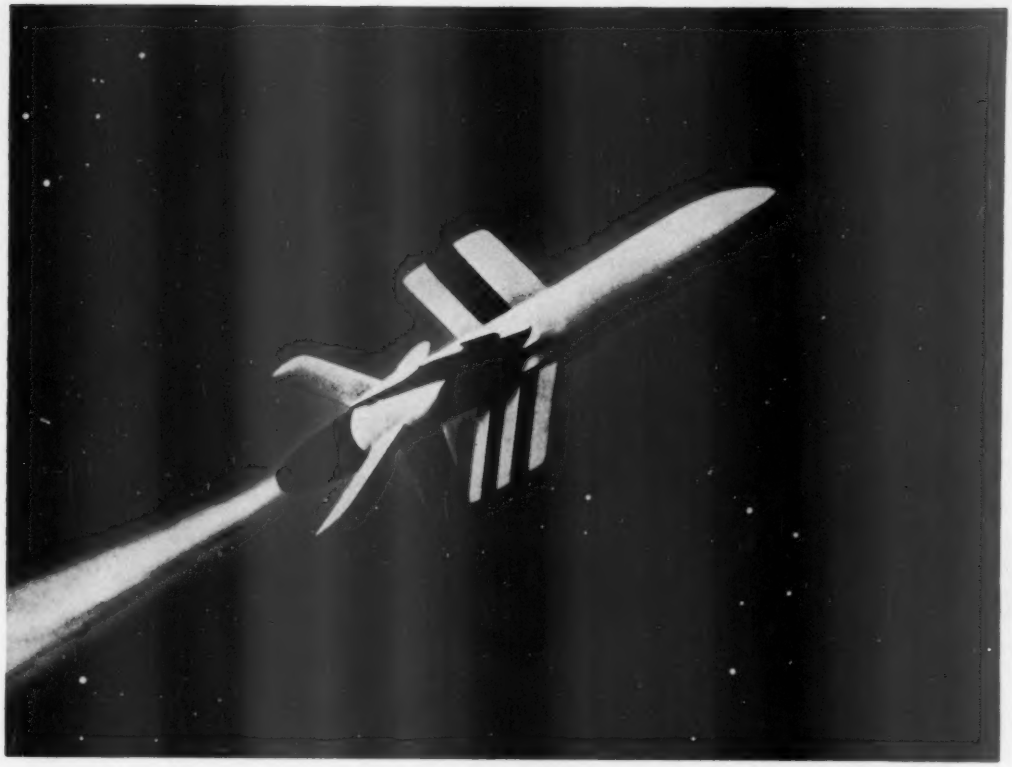
THE COLSON CORPORATION
ELYRIA, OHIO

RESORTS

TRADITIONAL vacation, but tailored for middle incomes, is what you get when a . . .

Florida Project Plays A New Trend in Vacations

(Story on page 75)



Sky-hunter with a heart of steel

This guided missile, moving faster than sound, is one of America's new weapons of defense. Three different kinds of Armco Stainless Steel, each created for a special purpose, are used in its construction.

Today Armco Stainless Steels are helping America arm – and turn out essential industrial equipment. But many manufacturers are planning now for the time when these solid, rustless steels can be put back to work on household uses where long-lasting beauty is first in sales-appeal. With the metallurgical assistance of Armco technicians they are designing products ranging from golf clubs to carpenters' saws, from bathroom accessories to kitchen utensils.

Armco Stainless – in more than thirty different grades for special uses – is only one of a long list of Armco Special-Purpose Steels developed to help manufacturers improve home and industrial products. And 37 years of national advertising have kept your customers informed about the special benefits of these *extra-quality* steels.

MORE SCRAP FOR MORE STEEL

More steel scrap is needed for top steel production. The new furnaces the steel industry is building cannot be operated at capacity with the present scrap supply. To help the nation–and yourself–sell your steel scrap now!

ARMCO STEEL CORPORATION

MIDDLETOWN, OHIO, WITH PLANTS AND SALES OFFICES FROM COAST TO COAST
THE ARMCO INTERNATIONAL CORPORATION, WORLD-WIDE

ARMCO

Speed up
Production with
Engineered

Colson CASTERS

Today's terrific tempo calls for speed and efficiency in materials-handling. Rolling stock that doesn't roll wastes time, manhours and money.

Let a COLSON engineer show you how you can modernize your rolling equipment easily, and at very low cost, with precision-built, easy-roll, easy-swivel COLSON Casters. Write us or consult the "yellow pages" (under "Casters" or "Trucks-Industrial") for the COLSON office near you.

THE COLSON CORPORATION
ELYRIA, OHIO

Please send free 68 page catalog—
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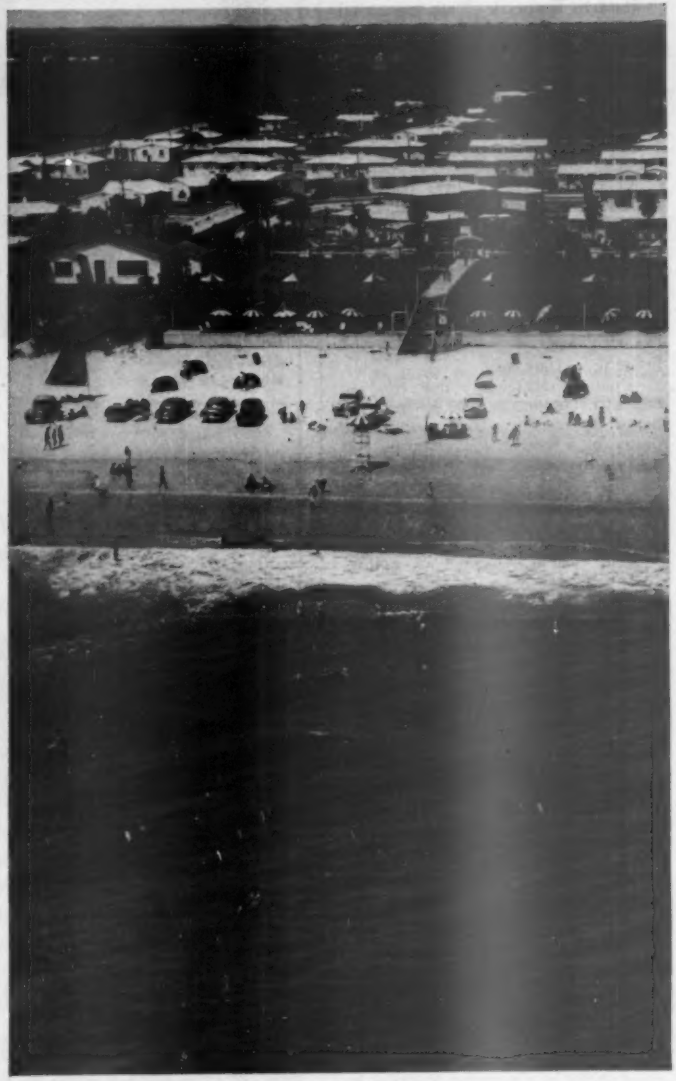
THE COLSON CORPORATION
ELYRIA, OHIO

RESORTS



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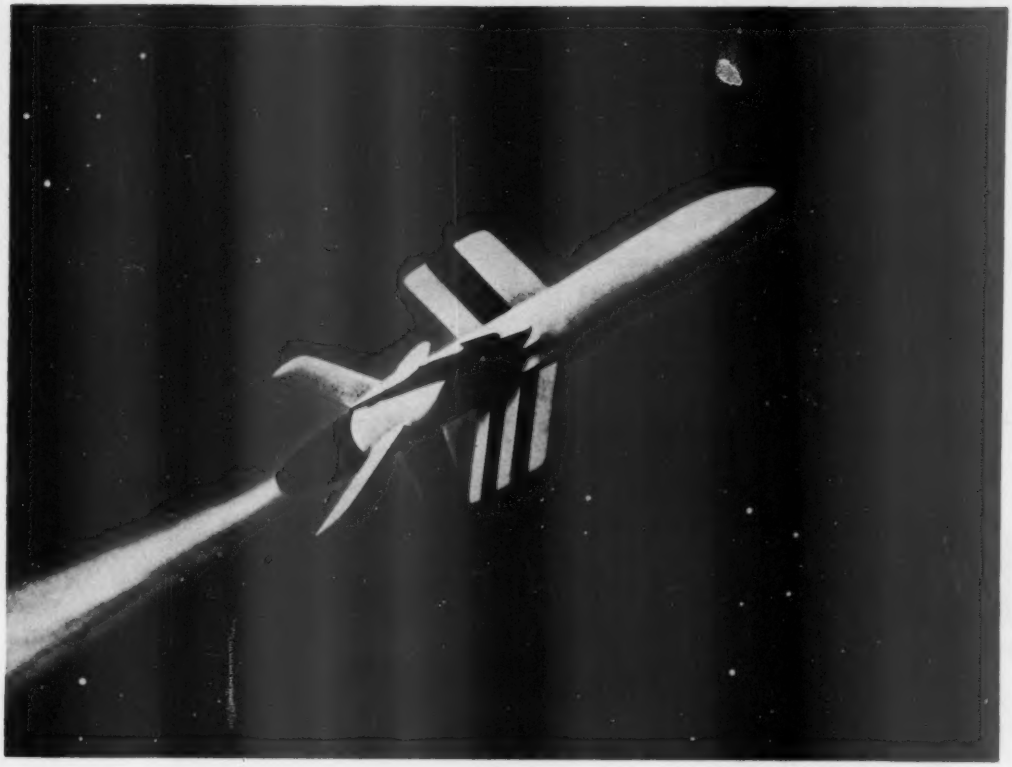

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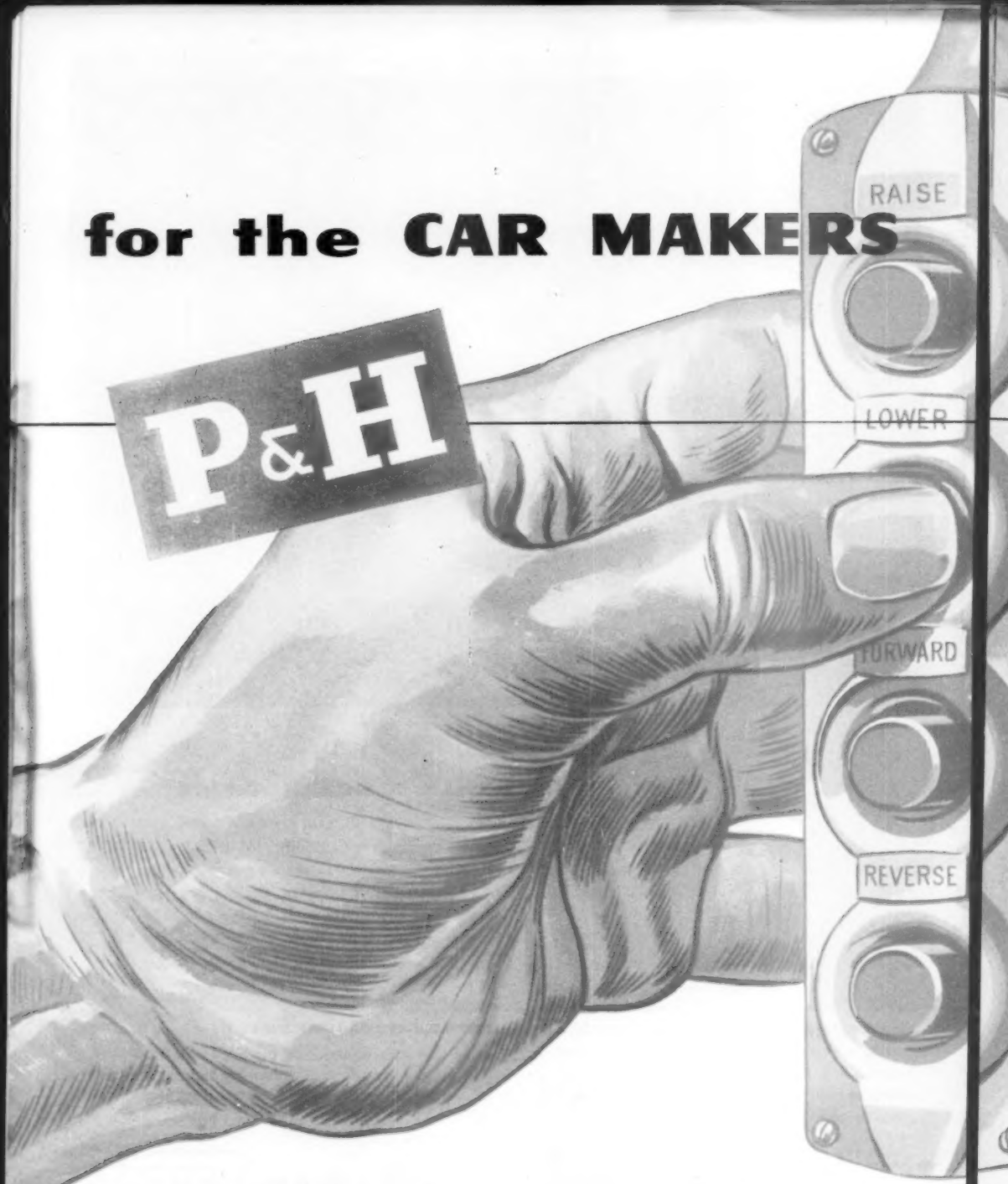
ARMCO STEEL CORPORATION

MIDDLETOWN, OHIO, WITH PLANTS AND SALES OFFICES FROM COAST TO COAST
THE ARMCO INTERNATIONAL CORPORATION, WORLD-WIDE

ARMCO

for the CAR MAKERS

P&H



the P&H Line

TRUCK CRANES

DIESEL ENGINES

POWER SHOVELS

HOMES

ELECTRIC

as for YOU....

a great hand at cutting costs!

In the home of the assembly line, they never stop thinking of ways to run it for less. In *thru-the-air* handling they found one. Smoothly, swiftly it feeds parts to the line — all at the touch of buttons — who *couldn't* save this way? Yet *thru-the-air* handling is but one of many P&H developments . . . many ways to save. Cutting *your* costs? Let P&H give you a hand!

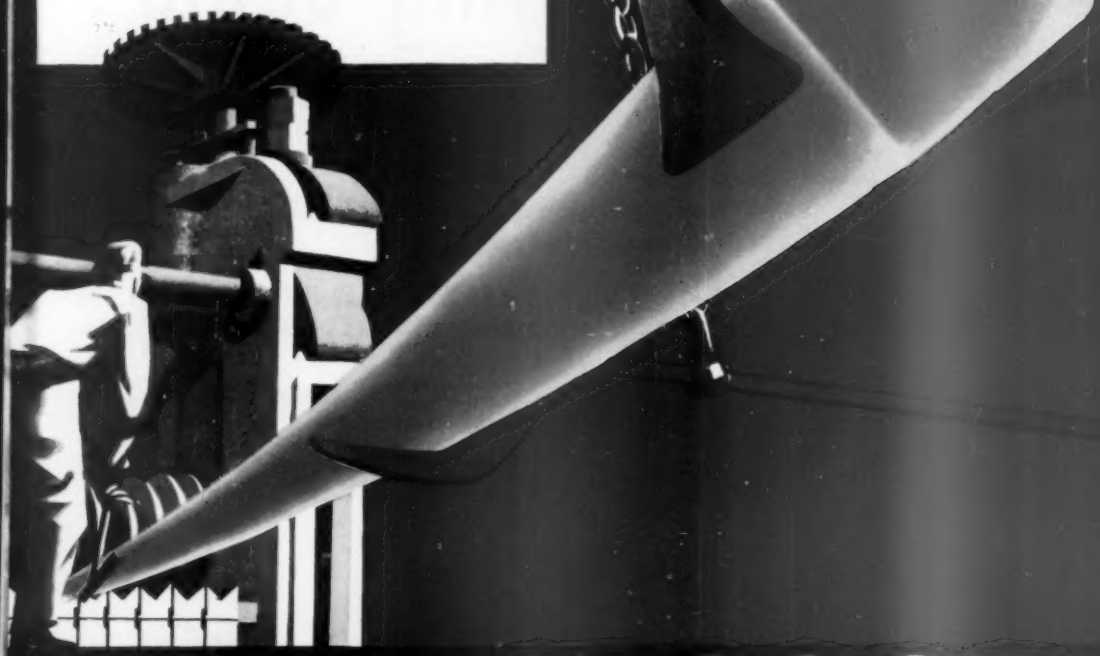
HARNISCHFEGER CORPORATION
MILWAUKEE, WISCONSIN

WHY PAY 20%? Of all the money spent on manufacturing, 20% goes for handling. There is no better place to cut costs. No better way than handling *thru-the-air*. No better source than P&H, world's largest maker of overhead handling equipment. Pictured: the P&H *Hevi-Lift* Electric Hoist, for loads from 1000 pounds up to 15 tons.

teamwork

makes fine steels at Jessop

Visit revitalized Jessop at Washington Pa. and you'll be impressed by the comradeship, teamwork, and intense activity you see. You'll find Jessop people in the plant and in the office working closely together with evident purpose. Their purpose is the production of the finest special steels you can possibly buy. If you buy any special steels at all, remember that every man on the Jessop team wants you *personally* as a satisfied customer.



high speed steels
high speed bits
precision ground flat stock
high speed and alloy saw steels
hot work die steels
cold work die steels
carbon and alloy steels
stainless and heat resisting steels
valve steels
stainless-clad steels
cast to shape steels
composite tool steels
armor plate

JESSOP

STEEL COMPANY · WASHINGTON, PENNSYLVANIA

VILLAS feature complete electric kitchens with all modern conveniences.

". . . The top class is dwindling in importance . . ."

(Pictures on p. 70)

Until recently, a Florida vacation traditionally has been two things: It has been in the winter, and it has been expensive.

About five years ago an ex-building contractor named Merrill F. Ellinor bet $5-million that the tradition was changing. The result of his gamble was Ellinor Village, a housing project that includes 650 modern Spanish villas, a complete shopping center, a golf course, even a country club. Ellinor tailored his rentals for the middle-income vacationer. To convince people that there was no difference between summer and winter vacations, he abandoned the old-time Florida policy of jacking prices up and down according to the season.

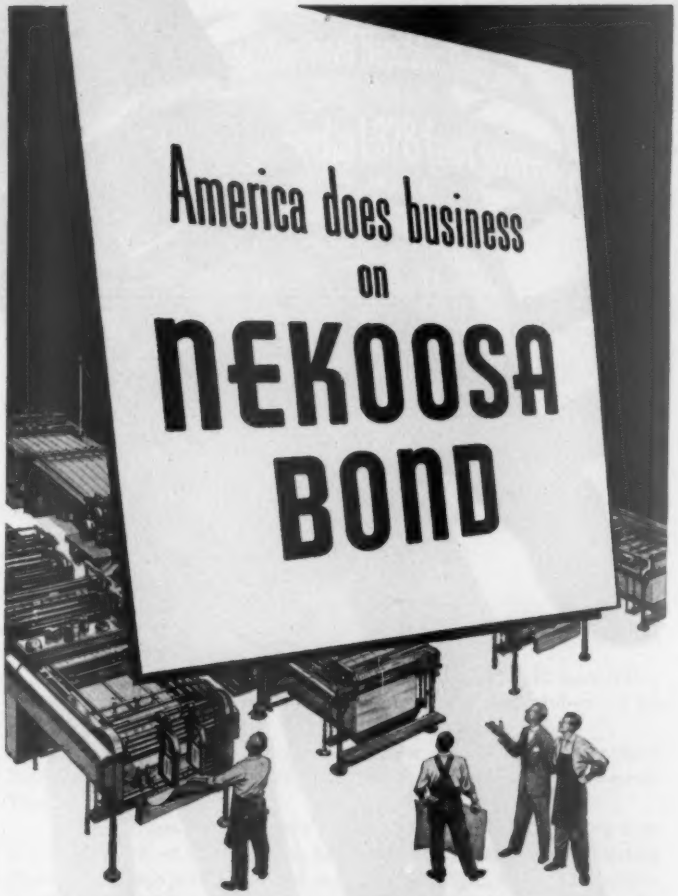
Ellinor's idea worked: Today Ellinor Village is doing a roaring business—all year round.

• **Theory**—Ellinor, and a lot of other canny businessmen along Florida's coast, have realized the importance of two major economic trends:

• More people are in the middle-income brackets today than ever before. The top class—the class that can pay $1,000 a week for a vacation—is dwindling in importance.

• More middle-income people are getting paid vacations now than ever before. And these vacations fall in every month of the year.

• **The Idea**—These thoughts were in Ellinor's mind when he was casting around in Florida after the war for a likely business venture. In the words of C. W. DeCoudres, his right-hand man: "Merrill and I drove all over Florida, up and down both coasts and



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EMBEZZLEMENT—and that includes a lot of fancy juggling of the books as well as plenty of just plain stealing of money and goods—costs American business at least $500,000,000 a year.

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ELLINOR (right) talks with village tennis pro on prospects for coming season.

crosswise. Everywhere we went, resort prices were out of sight for the average pocketbook. Worse than that, nobody wanted kids or dogs. Merrill said: 'Let's just turn it around the other way.'"

So they got a $4-million FHA loan, went down to Ormond Beach near Daytona, and started work. The resort project was pretty well completed by 1949.

• **All Comers**—Today Ellinor Village de-emphasizes the traditional concept of the Florida vacationer—the rich socialite wintering at Palm Beach. According to DeCoudres: "We aim at middle-income people from all over the country, and we're spending about $100,000 a year on promoting the idea right now."

In keeping with this middle-income pitch, rentals are kept low. A three-room villa can be had for $49.50 a week, a six-room villa for $125. These prices buy more than just the villa: Among other things, you get free membership in the country club; low-cost golf, swimming, tennis; school buses and playgrounds for the kids.

• **Going Concern**—Apparently, all these features are selling Ellinor Village pretty successfully. The village has room for about 3,000 people; on a typical day this February there were 2,500 registered.

New customers are showing up all the time. Business this year is approximately 20% ahead of the same period in 1951.

• **Outlay**—The project is still in promotional stages, and all profits so far have been plowed back into further development. Last April, for instance, Ellinor bought the 18-hole Ormond Beach golf course for $1-million. Another $100,000 will be spent this year in landscaping sandy parts of the village.

• Out of the sawmill, over a pond, under a railroad track, up a hill—1,378 feet all told, and with a back-breaking load of raw lumber . . . it's quite a journey.

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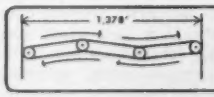

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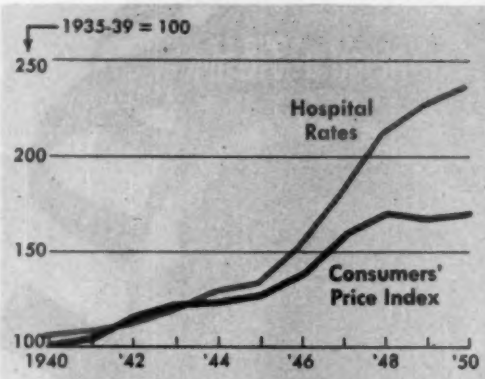
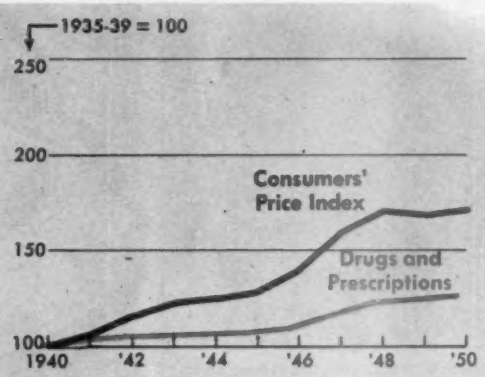
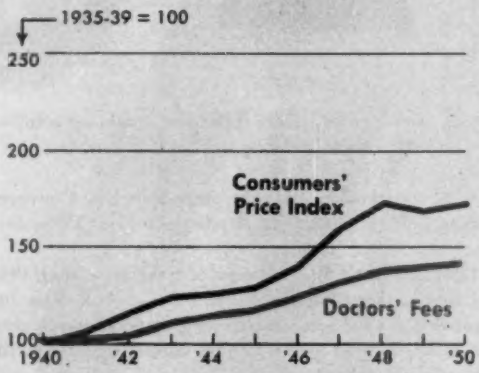


1 Hospital rates have zoomed upward since 1940, but . . .



2 . . . the cost of drugs has moved up fairly slowly



3 Doctors' fees have also lagged behind consumer prices, but . . .

Doctor's Fee for Delivering a Baby
(including prenatal and postpartum care)

Family Income	*Towns of Under 10,000*	*Cities of 10,000-499,999*	*Cities of 500,000 and Over*
$2,000	$63	$74	$88
$3,500	72	85	108
$5,000	77	93	122
$10,000	91	112	150

Data: *Medical Economics.*

4 . . . doctors' fees vary with the size of your town and salary.

Data: Bureau of Labor Statistics; American Medical Assn. ©BUSINESS WEEK

More Money, But More for Your Money

Anyone who has had any sickness in his family recently knows that medical costs have soared right along with the cost of a lot of other things. Last week a whole group of people who may not have been sick at all became aware of the same thing. Associated Hospital Service of New York, one of the Blue Cross medical insurance plans, announced that as of May 1 it would boost its rates anywhere from 20% to 60%, depending on the type of contract.

• **Costs Up**—In a letter to its 4.9-million subscribers, Associated Hospitals explained that rising hospital rates had made the move necessary. Ever since 1948, said Associated, it had been struggling to meet its payment of hospital bills without boosting rates. Now it is drawing on its reserves and must replenish them by raising rates.

Nobody could quarrel with the Associated argument. In the 10 years between 1940 and 1950, hospital rates throughout the U.S. as a whole rose about 135% (chart, above). The reasons are obvious—rising operating costs of labor and materials, greatly increased use of hospitals, and a tremendous rise in technical equipment and services required by modern medical practice. Since Blue Cross plans are concerned only with paying hospital bills of subscribers, it has taken the full brunt of the climb.

• **Blue Shield, Too**—Meanwhile, Associated's sister organization, United Medical Service, Inc. (Blue Shield), has similar news. This group, which helps its subscribers pay doctors' bills, said it was boosting its rates, too—but not by so much as Associated. And for a different reason: The 2.5-million persons that United covers were making

more and more use of its benefits. For example, people under the plan no longer postpone elective operations for financial reasons.

United hasn't been hit too hard by rising doctors' fees—mainly because they haven't risen anything like so much as hospital rates. As the chart (page 78) shows, fees for all types of physicians rose between 40% and 45% in the 10-year period.

• **Net Income Higher**—For Blue Shield purposes—figuring rates—that figure is accurate enough. But from another point of view, it is deceptive. According to a survey completed last year by the American Medical Assn., the mean net income of all U. S. physicians—general practitioners, specialists, and dentists—had increased by somewhere between 150% and 186% in 10 years.

In figures, it looks even more impressive: It stood at around $4,100 a year in the 1935-39 period, was up to $11,058 in 1949. AMA has two explanations for this: "(1) improved collections—a decrease in the percentage of uncollected bills for medical services rendered and, perhaps, a smaller percentage of charity patients . . . (2) greater 'output per physician.'"

• **More Work**—On the last point, AMA points out that physicians are doing a great deal more work than they were 10 years ago because of things like changes in therapy and diagnosis, seeing more patients in their offices and in hospitals than on house calls, and better transportation.

But the boost in collections probably has the most bearing on the rise in the doctor's income. His old lament that the doctor's bill is always the last one to get paid holds much less water these days. The reason, of course, is that his patients have more money, in spite of inflation of prices of other goods and services.

• **Actual Fees**—Medical Economics, authoritative national business magazine for the medical profession, recently undertook a spot check on doctors' fees. The results of a 12-city survey indicate that in many towns the fee rise has fallen below the 45% national rise. The magazine found:

• In all but two cities, the current median fee for office calls is $3.

• Most physicians said they felt the fees were "about right" for their locale when related to costs of other goods and services.

• **Income and Locale**—In another survey, Medical Economics discovered that how much a doctor charges you will in many cases depend on where you live

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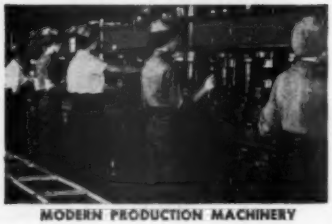

MODERN PRODUCTION MACHINERY

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and how much you make (chart, page 78). Biggest factor was community size—fees in large cities average 73% higher than they do in small towns. (Highest fee reported in this survey was the $750 a Detroit obstetrician said he charged his $10,000-a-year patients.)

Small-town fees vary far less according to income than those in big cities. Said one general practitioner: "In a small town, you can't charge a sliding scale based on income without everybody knowing—and complaining—about it."

• **Doctors' Expenses**—All this seems to indicate that doctors never had it so good. And that's probably true. However, if you talk to the average doctor, you'll find that he has his headaches, too. For the U.S. as a whole, the average total operating expenses for doctors stood at $2,963 in 1939. By 1947 they had risen to $7,200. And in 1952 they will hit at least $9,000.

There isn't much water in these expenses that a doctor can drain off. He must have drugs and supplies, which in four years have risen in price some 30%. Equipment he needs has gone up 51% in the same length of time; salaries of assistants and nurses are up 45%; and upkeep of his car (vital to most doctors) is up 33%.

• **Added Costs**—On top of these regular expenses, doctors have had to add others that have grown out of new technological and medical developments. To keep pace with advancing medical practice, doctors, either singly or in groups, have had to add a lot of expensive equipment they didn't need 10 years ago—things like basal metabolism units, fluoroscopes, X-ray equipment, diathermy machines.

• **Patients Benefit**—Such equipment, plus many another scientific development, has resulted in great benefits for patients, too—better care, and in some ways cheaper care. The "wonder drugs," especially antibiotics, serve as a case in point:

Back in the early thirties, lobar pneumonia (then 40% fatal) laid a man up for eight weeks, most of it in a hospital. When he recovered, the total cost ran to around $400, plus time away from work. Today lobar pneumonia is less than 5% fatal, will keep a man off the job for eight days—and costs him about $50. About $30 of that goes for an antibiotic like aureomycin, which turns the trick.

• **More and Better**—So today the average U.S. doctor is able to give the American public more and better medical care than he has ever been able to give before. That care costs a bit more than it used to, but patients are paying for it more willingly than usual. The end result: Physicians can drive Cadillacs and still meet their own mounting expenses.

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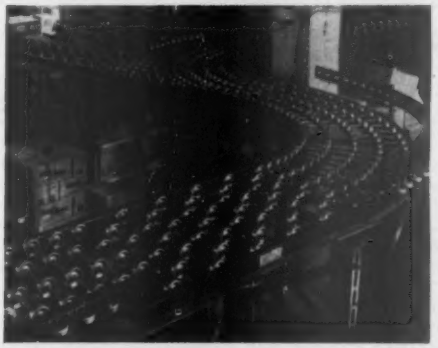

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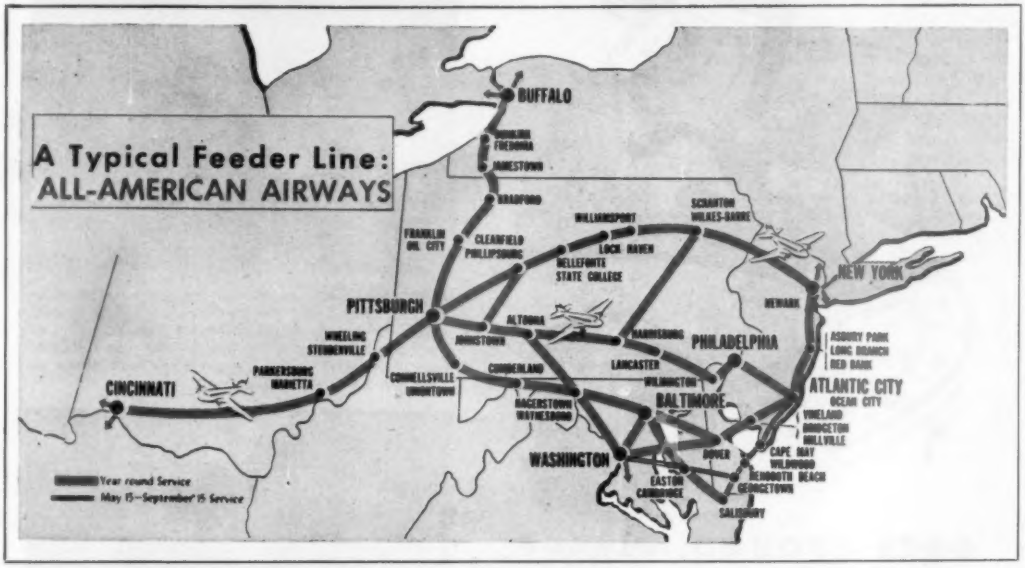
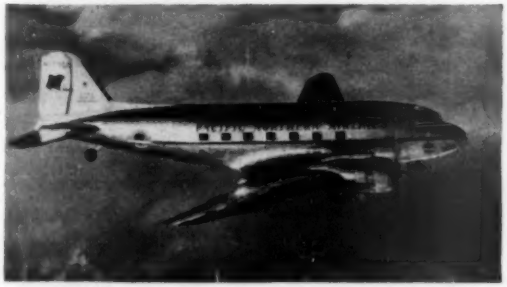
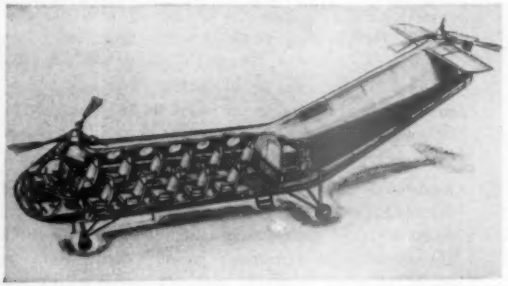


TYPICAL LOCAL SERVICE AIRLINE in the East is All-American Airways. As the map shows, the system is tightly knit.



OLD Standby of the local service lines is the reliable DC-3, but the plane has lots of drawbacks.



NEW? The future workhorse may be a civilian helicopter, probably with more seats than this version.

Local Airlines Yearn for Security

Long before World War II, the pattern of U. S. trunk line air service was firmly crystallized. But at that time, airline executives were very skeptical about the chances of ever serving the smaller cities at a profit.

Toward the end of the war, there was an abrupt turnabout in the thinking. Throughout the war, despite restrictions and lack of equipment, airline business rose steadily and sharply. And by 1944, many people in the industry were convinced there was also a great potential demand for short-haul service. They knew the feeder lines would need a good bit of government subsidy to get started, but they were convinced local service could be built up to a profitable business that needed no subsidy.

• **Does Need Subsidy—Today** the thinking has turned around again. The Civil Aeronautics Board started awarding temporary certificates to feeder lines in 1946; today there are 17 certificated lines. But with three to five years of operations behind them, they still aren't profitable. During the fiscal year ended last June 30, they drew down $16.9-million in mail pay and subsidy. CAB has estimated the figure at $18.7-million for the current fiscal year, $17.7-million for the year ending June 30, 1953. In each case, less than 10% is compensatory pay for carrying the mail; according to CAB figuring, more than 90% is outright subsidy.

So the question today, as it was before the war, is: Can local service airlines ever pay their own way?

The government will not be willing indefinitely to shell out $15-million or more a year to subsidize the local carriers. On the other hand, it's hard to see how the government could let them go out of business entirely; the large number of small cities that get all or most of their air service from

feeder lines make up too powerful a political force.

• **Not Real Feeders**—The original concept of the small airlines was that they would be true "feeder" lines—that they would take passengers from small towns into a larger, terminal city and "feed" them to a trunk carrier.

It hasn't worked out that way. Fully half of the small lines' business today consists of passengers going from one local point to another, or to a terminal city as a final destination. Thus, the small lines are really local service airlines.

• **That Makes Problems**—This type of service results in problems of operation that the trunk lines don't have. For example, the average distance between stops on local service lines is only 65 mi., and the average passenger trip is less than 200 mi.

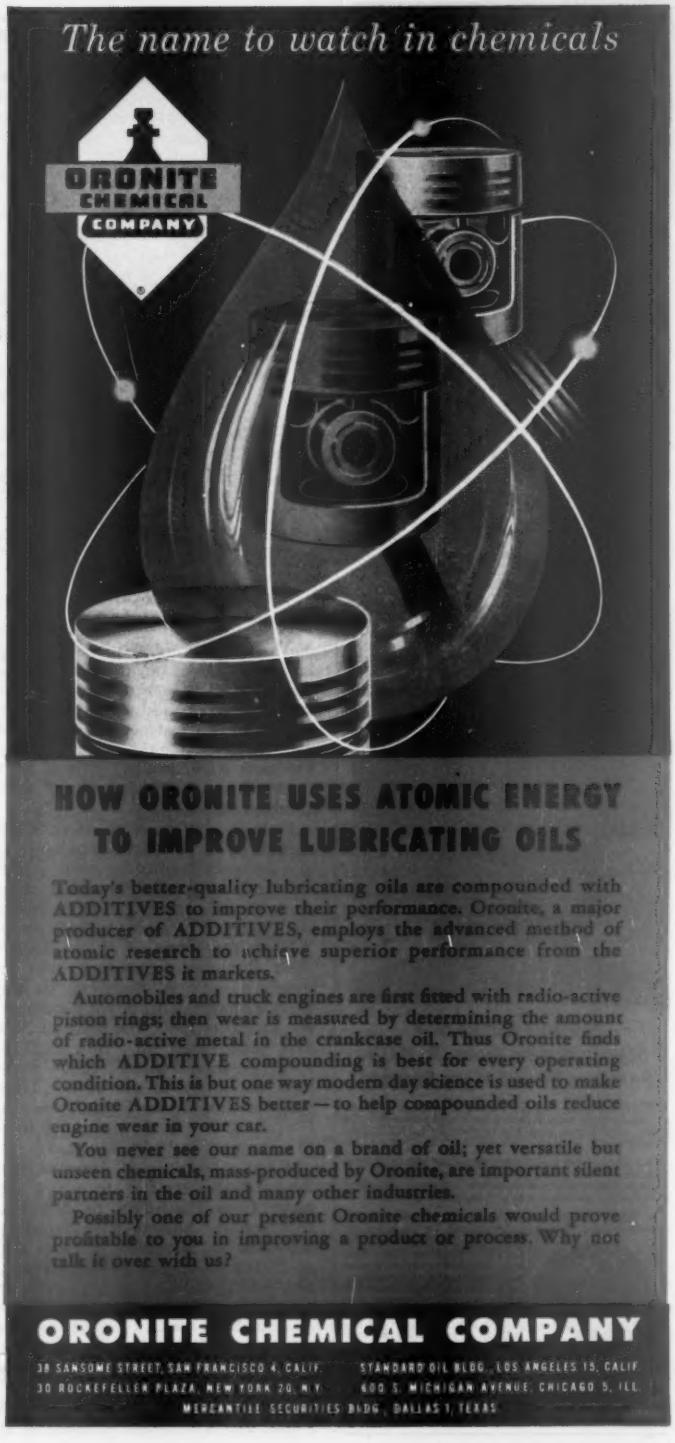
That type of route pattern goes a long way toward negating the greatest advantage of plane travel: speed. A plane can't fly very high or fast on a 65-mi. hop. The time consumed in letting down and taking off is proportionately far more important on a short hop than on a long one. The same thing is true of the time it takes the passenger to get to and from the airport.

• **Load Factor**—One of the most important factors in running a profitable airline is a high load factor—the larger the proportion of seats occupied, the greater the revenue for the same amount of expense. For local service lines, the average load factor is far lower than it is for trunk lines. In fact, the local lines have found the more stops they make between terminals, the poorer the load factor.

It's easy to see why: With passengers getting on and off at each of several stops on a run, there's bound to be a lot of "air" in the bookings. On a nonstop flight from Pittsburgh to New York, say, it's not hard to get 100% seat occupancy; when you stop at eight intermediate cities (as All-American Airways does on one of its flights) and some passengers get on or off at each city, 50% is a good average.

It costs just as much to handle each passenger's baggage or to print his ticket and sell it to him, whether he's traveling 200 mi. or 2,000 mi., but the revenue on the short haul is only one-tenth as much. The basic cost of maintaining stations at local airports is the same, no matter whether they're 65 mi. or 650 mi. apart, and no matter whether you fly two round trips a day or 10.

• **Rolling Stock**—Altogether, the 17 local service airlines fly 127 planes. Of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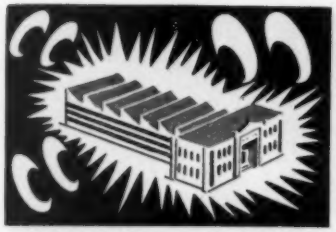

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these, 114 are Douglas DC-3s, converted from war-surplus C-47s; the others are Beech and Cessna planes.

The DC-3 is far from the ideal plane for local service airlines. It's a relatively slow plane; average air speed is about 170 mph., and average block-to-block speed (from the time the wheel blocks are removed at one airport to the time they're put on at the next) runs about 145 mph. on local service lines. For carriers that have to compete with ground transportation primarily on the basis of speed, that's too slow. The most economical range of the DC-3 is 300-350 mi. between stations; compare that with the local service lines' 65-mi. average. Local service lines use the DC-3 because it's the best plane available, but it costs them millions of dollars a year.

• **Three Needs**—Robert M. Love, president of All-American Airways, says the local service lines need three things if they're ever to become profitable: (1) greater freedom of scheduling, (2) less competition from the trunk lines, and (3) a new airplane.

I. Flexible Schedules

When the local service airlines first started, they were required to stop at every station on their routes on every trip. It soon turned out that that was impractical. On All-American routes, for instance, population of the nonterminal cities ranges all the way from 6,000 to 200,000; you can't expect them all to support the same number of flights daily.

Early in the game, therefore, CAB started giving the feeders permission to skip specific cities on some schedules and to overfly scheduled stops when they had no incoming or outgoing passengers or mail for those point.

• **Never the Twain . . .**—Love doesn't think that goes far enough. For instance, he says, All-American has two roughly parallel routes out of Pittsburgh, one to Philadelphia, the other to New York (map, page 82). But, until recently, it wasn't allowed to fly across from one route to the other. Thus, there was no service from Altoona or Harrisburg to New York, or from Williamsport to Philadelphia.

About a year ago All-American had its certificate amended to add a segment from Harrisburg to Scranton; that permits Altoona and Harrisburg flights to go into New York as well as Philadelphia. But Love isn't satisfied. For one thing, most points on the Philadelphia route are still cut off from New York. For another, there is no way to judge the travel potential between, say, Harrisburg and Williamsport, because no planes fly that run.

• **Accepts Restrictions**—What Love would like is complete freedom to fly from Pittsburgh to either New York or Philadelphia by whatever route he chooses, subject to two restrictions:

• Every flight must have at least three intermediate stops, so as to rule out competition with the trunk carriers for through business.

• At least two round trips a day must stop at each intermediate point.

CAB has approved one such arrangement in modified form. Southwest Airways has nine scheduled stops between Los Angeles and San Francisco; CAB now allows it to stop at any four it chooses, providing each city gets at least two round trips a day.

II. Less Competition

Long before the feeder lines were started, the trunk lines served many of the towns that are now key cities on the local routes. These through routes are still there today and, Love says, often skim off just enough of the cream to starve a local route that would otherwise be profitable. He would like to see the trunks removed from any city where a local line can prove it can give adequate service.

That's hard to do, though, because:

• Municipal governments and chambers of commerce like the prestige of being on a big airline, even though the big airline gives the town only token service and the local airline, if unopposed, could actually give better service than the city now gets from both.

• Most big airlines don't want to give up local stops, even though it costs them more to maintain ground facilities than they get in revenue from those stops.

CAB chairman Donald Nyrop says his agency would like to see a lot of this duplication eliminated eventually. But he sees it as a long, slow process. The cities and the airlines affected are likely to go to court to oppose such changes. For example, when CAB asked United Air Lines to stop serving two cities between San Francisco and Los Angeles to give Southwest Airways a clear field, United fought back with a court action.

III. And an Ideal Plane

On the need for a new short-haul plane, just about every local service man in the country is agreed. The plane should have about the same capacity as the DC-3 (21 to 24 passengers), and it should cost no more to operate. But it should fly considerably faster—say 170 mph. block to block, compared with 145 mph. for the DC-3. It should be capable of rapid turnaround at local airports—which includes short takeoff and landing, fast acceleration, ease of servicing and fueling, and

ease of loading (the cargo door should be at waist height, for instance). Many people add that it should have fold-away seats and adjustable bulkheads so that freight capacity can be expanded when the passenger load is small.

• **Disagrees**—Love doesn't agree with the need for more cargo space. He feels the freight potential of the local service lines is, and always will be, insignificant. Air freight requires the same handling expenses and the same local hauling time for a flight of 100 mi. as for a flight of 2,000 mi.; on a short flight these factors boost the cost and cut the speed to the point where flying offers no advantage.

• **Chances Not Bright**—Anyhow, the local service lines don't have a very good chance of getting a new short-haul plane anytime soon. For one thing, all the plane manufacturers today are up to their ears in war work; they don't have the time or manpower to design and engineer the prototype of a new transport. Even if they did, they'd look long and hard before they leaped. They figure the total demand for such a transport would not be more than 150 or 200 planes all told; on that volume they'd never be able to recoup development costs, let alone make a profit.

The local service boys would like the government to subsidize development of a prototype. They say it could be done for far less than the cost to the government of one year's local service subsidy payments. But if pressed, they'll admit that's a forlorn hope.

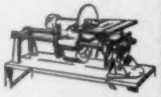
• **Rotary-Wing Savior**—However, one type of plane is being developed at government expense right now that may prove to be the eventual salvation of the local service industry. That's the helicopter (BW—Nov.24'51,p132).

Helicopters in production today for the armed forces would be large enough for local service purposes. The Piasecki H-21A, for instance, could be built to carry 21 passengers (picture, page 82). On the basis of present costs, it could be made to sell for about $170,000, Piasecki estimates—far less than the projected cost of a comparable fixed-wing plane.

• **Advantages**—A helicopter can't fly as fast as a fixed-wing plane, of course. But on hops of up to 150-200 mi., that disadvantage would be more than offset by the fact that helicopters can land close to town, if not actually in the business district. That would cut time way down in travel to and from the airport.

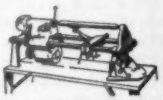
Some cities, notably Chicago and Los Angeles, already allow helicopter landings in built-up areas. If it came to a choice between that and losing air service altogether, most towns on local service routes would be sure to follow their lead.

As an 8" Circular Saw


As a 12" Disc Sander

As a Horizontal Drill

As a 15" Vertical Drill Press


As a 33" Wood Lathe

There's one thing about woodworking: *you don't have to be an expert to enjoy it.* Almost anyone can find relaxation in working with tools. And the finer the tools, the more *satisfaction.*

Which explains, in part, why so many busy people own SHOPSMITHS.

SHOPSMITH is Magna Engineering's five-in-one power tool. It's built for satisfaction. Every precision-fitted part is top quality through and through. The multi-purpose spindle, for example, floats on *four* sets of grease-sealed ball bearings. The extra bearings mean extra precision, extra ruggedness, extra-long life. The spindle itself has an induction hardened tip, machined to a tolerance of two ten-thousandths of an inch (.0002"). And other moving or sliding parts are held to watchmakers' tolerances.

Design-wise, SHOPSMITH is equally impressive. It converts in less than a minute from an 8" circular saw to a 12" disc sander, 33" wood lathe, 15" vertical or horizontal drill press. Takes only 2' x 5' floor space. Costs only $189.50 complete except for motor ($34.50). See SHOPSMITH demonstrated at leading hardware and department stores or any Montgomery Ward store. Or read about it in our free 16-page catalog.

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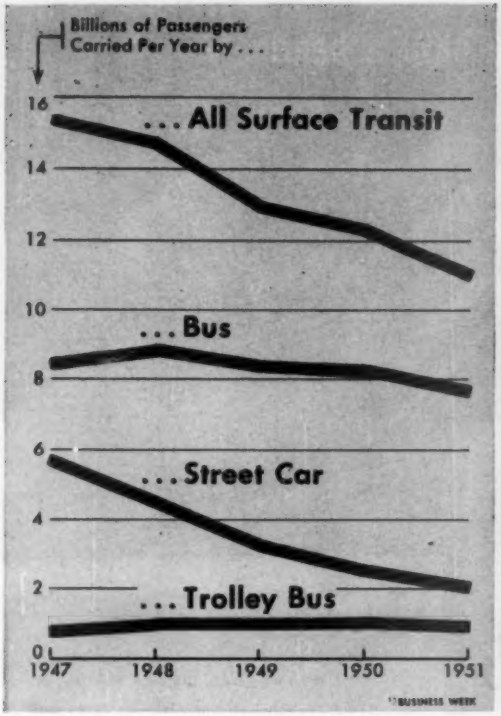

DOWN CURVE shows the sad state of surface lines as . . .

NEW YORK'S Third Avenue Transit Corp., plagued by labor

Privately Owned Transit Sees a Bleak

When you're trying to wedge your way into an already overloaded bus, you probably wished you owned a little stock in the transportation business. Actually, you're better off without it. Contrary to appearance, the $4-billion metropolitan transit industry is skidding badly. And it's mostly thanks to the increasing use of the family car throughout the U.S.

The problems of New York's privately owned, bankrupt Third Avenue Transit Corp. are a sample of what's happening all over the country. Practically every city's transportation system is in the financial soup. And that means trouble all round because, any way you take it, every city has to have a transit system.

• **Reprieve**—The Third Avenue has been on the ragged edge of liquidation a dozen times in the past year. For years the line has been operating at a deficit, in spite of increased fares and reduced franchise taxes. Transit people split the blame among labor strife, years of mismanagement, and the general troubles of the industry.

Last week the line got another reprieve. Company officials told the U.S. District Court that the line is now breaking even and that a complete reorganization is in the works. Judge Samuel H. Kaufman adjourned until Mar. 12 a scheduled hearing on a motion to discontinue the transit system's Bronx operations. The Third Avenue Transit's buses carry more than 1-million passengers a day in the Bronx and Manhattan.

• **Mass Transportation**—In New York, the transportation problem is complicated by a mixture of all kinds of transport and all kinds of ownership—public and private. There is the complex and sprawling municipally owned system (subways, elevateds, and surface operations comprising streetcars, trolley buses, and motor buses). There also are a number of large and small privately owned systems (all surface operations with buses and a few streetcars).

Mass transportation in almost all other cities is surface type (streetcars, trolley buses, and motor buses). Boston, Chicago, and Philadelphia have comparatively small subway operations along with surface operations. Private ownership of transit lines predominates throughout the country except for a handful of cities that have one or another form of municipal ownership.

• **Facts and Figures**—But the same trend is showing up all over the country, regardless of the kind of transportation. The American Transit Assn., which represents about 85% of the industry, maintains a transit traffic index, taking the average level of riding in the years 1936-40 as 100. At the end of 1946, the first full postwar year—and the peak year in transit riding—ATA's index figure stood at 173. At the end of 1951 it was down to only 119.

To get the full impact of this decline, you have to remember that the population of the United States has increased from about 130-million to about 150-million in the past decade.

According to a survey made by ATA, in 1950 there were 1,400 transit companies (including subways), with an investment of almost $4-billion. They operated more than 3-billion vehicle miles, carried more than 17-billion passengers, and employed about 250,000 workers. Of the 69 classifications of industry, transit was at the bottom of the heap incomewise—with net in-

strife and mounting deficits, faces liquidation.

Road Ahead

come after taxes of 1.9% of net assets.

In 1951 the investment remained about the same, but vehicle miles were off slightly—about 5%. The number of passengers carried had dropped by almost 10%.

• **Shining Example**—To see just what is happening, look at a typical medium-sized city. In 1946 the Springfield Street Railway Co., of Springfield, Mass., carried 44,815,049 passengers. Passenger totals for the following years were:

1947	42,738,359
1948	41,690,266
1949	36,163,271
1950	32,436,067
1951	30,736,413

This is a decline of 31% in five years. The Springfield figure closely parallels the national trend in transit.

• **Auto Villain**—It isn't that people are moving around the city less than they used to. They are still circulating, but more and more they are using family cars instead of public transportation.

The family car today is almost as necessary as the can opener. Auto registration now is in excess of 40-million. And every new car registered in

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Model 17-A COSCO Executive Chair: All-steel, saddle-shaped, revolving seat cushioned with Firestone Foamex or foam rubber latex; Tufflex-padded backrest curves *two* ways. Du Pont "Fabrilite" upholstery—green, brown, maroon, or gray. Bonderized, baked-on enamel finish, gray, brown, or green—also chromium. Exclusive "Finger-Lift" height adjustment; soft rubber casters, lifetime-lubricated. $48.45 ($50.95*). In armless model (17-T), $43.25 ($45.25*).

6 Easy Adjustments —without tools

1. For height of seat.
2. For depth of seat.
3. For slope of seat.
4. For height of backrest.
5. For angle of backrest.
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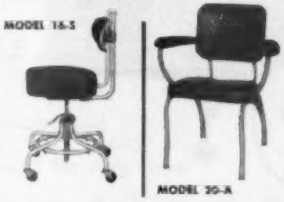

*Prices in Florida, Texas and 11 Western states.

Model 16-S Secretarial Chair, spring-tension back, $31.95 ($33.45*); **Model 16-F,** fixed back, $29.95 ($31.25*).

Model 20-A "Form-Fit" Side Chair, with arms, $29.25 ($30.55*); **Model 20-L,** armless, $23.95 ($25.25*).

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Deadweight costs you double

Save with Brown Lightweight Aluminum Trailers

Dead weight costs you double — extra taxes and lost revenue. With Brown lightweight aluminum trailers you save taxes, gain extra revenue.

In most states you pay taxes on the gross weight of your trailers. If the trailers are heavier than necessary you not only pay taxes on dead weight but lose the extra revenue you could earn with Brown lightweight trailers. They are hundreds of pounds lighter than comparable trailers — carry bigger payloads, earn more revenue per trip.

Put a Brown trailer on any scale anywhere. Compare its weight with any other trailer of the same specifications. LET THE SCALE TELL THE TALE. You will find, like many other transport operators, the lighter weight of Brown trailers saves overhead and taxes. Their bigger payloads build profits.

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✓ Bigger Payloads
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". . . New York still offers the biggest transit bargain in the country . . ."

TRANSIT starts on p. 86

a community steals an average of two passengers from the transit company.

As more people take to cars, the per capita cost of transporting transit passengers rises. That sets off a vicious circle. As transit riding—and revenues —decline, transit tries to recoup by boosting fares. This drives more passengers away. As more autos pour into city streets, traffic bottlenecks develop and hold up the scheduled flow of transit vehicles. This makes the service less desirable, and more riders drift away. Transit then tries another tack, trims its service to cut costs—and makes the service even less desirable. More riders fall by the wayside. Then another fare boost to recoup losses. And more riders depart.

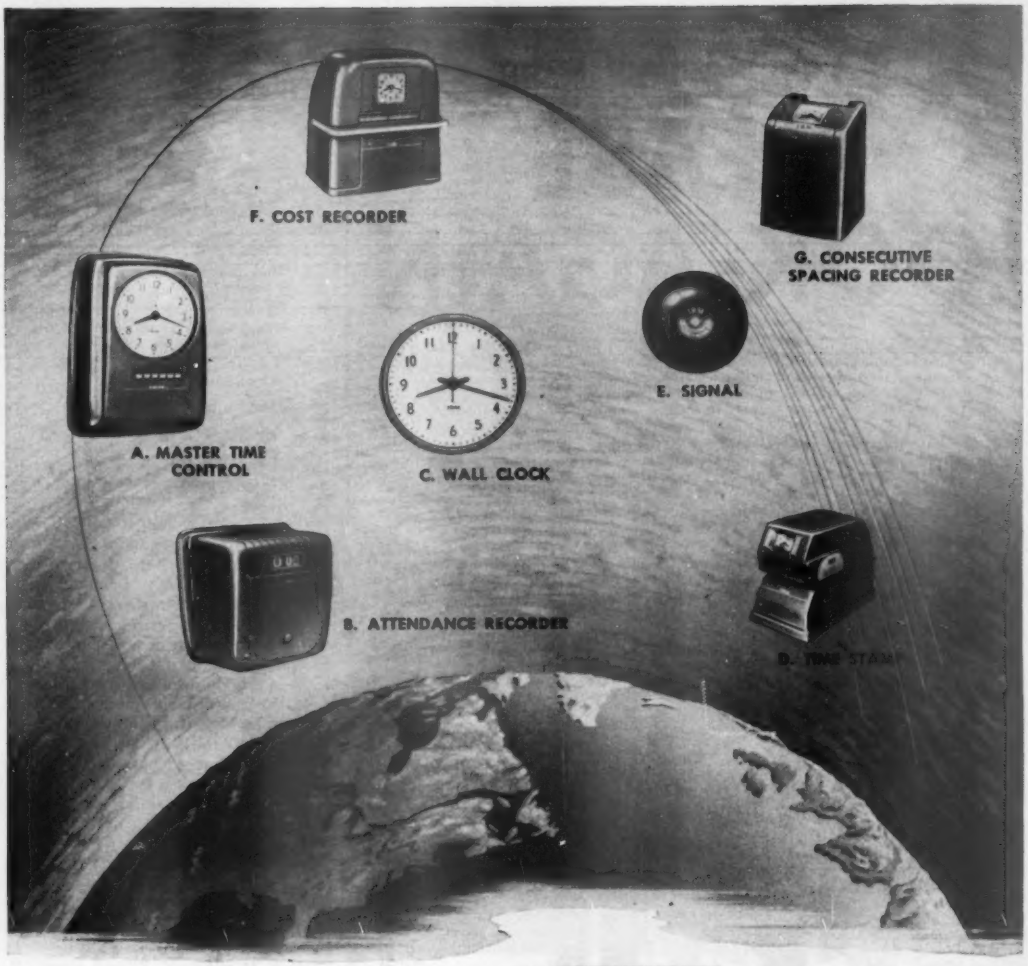
• **Too Little and Too Late**—As they ride this merry-go-round, the transit companies come up against another problem. Most state regulatory bodies have to cope with the regulation of all public industries as well as transit. So transit fare increase applications have to wait their turn on the overburdened dockets of utility commissions. As a result, operating losses continue to pile up. When an increase finally is O.K.'d, it isn't retroactive.

The traditional 5¢-fare front began to crack right after World War II. All over the nation, fare levels began shooting up, 2¢ to 3¢ at a clip. A few medium-sized cities still operate on a dime fare, but the average is closer to 12¢. In large cities (except New York), 13¢ is about the lowest fare.

Kansas City holds the record, with a 20¢ fare. In Chicago, it costs 17¢ to ride surface vehicles, 18¢ for express buses and rapid transit vehicles in the central city areas. Washington is holding the line at 15¢, Cincinnati 16¢, and Pittsburgh 17¢.

New York City, with its 10¢ subway and 10¢ bus fares (with the exception of the Fifth Avenue Coach's 12¢), still offers the biggest transit bargain in the country when you consider the amount of riding you can do on one fare.

• **Zone vs. Basic**—Some of the industry's medicine men prescribe the zone fare system, where you pay a basic fare for the ride in the first zone, then add two or three pennies for each additional zone. Proponents of this system insist it's the best way of keeping the "short-haul" rider—long recognized as the backbone of transit riding. Opponents favor the flat fare—one basic fare no matter how far you ride—but maintain that there should be no ceiling on the flat



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If you think you've cleaned out all your dormant scrap

PLEASE LOOK AGAIN

MAYBE you're like the prominent manufacturer who, when first approached by the Committee on Iron and Steel Scrap, stated: "We have well organized Salvage Departments in all our plants who accumulate and dispose of retired equipment as scrap so that the operation is continuous and up to date."

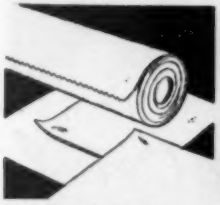
However, when a second appeal was made, pointing out how desperately scrap was needed, and requesting that he make a further, thorough search to see if additional dormant scrap could not be uncovered, here's what happened: *1,469.6 tons of scrap iron and steel were brought to light and sold.*

"These findings," said the manufacturer, "certainly bear out your contention that special scrap drives can turn up large quantities of valuable scrap."

So we ask *you* to please look again . . . to comb through every nook and cranny of your plants to make sure that you've not overlooked a single piece of old and useless equipment that could be scrapped.

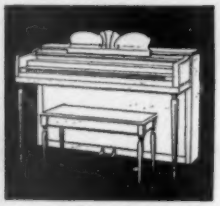
This job of getting out every last pound of industry's dormant scrap is primarily one for top managment—for you men, who alone have the authority to say "Scrap that Stuff." Without your personal and wholehearted cooperation, enough scrap will not be turned in. Without this scrap, the steel that industry must have to keep the wheels turning will not be turned out. That's why it's so important that you look again, and look *hard*.

Let us add your name to this SCRAP DRIVE HONOR ROLL



THE NORTHWEST PAPER CO. manufacturers of "Pedigreed Papers," write from Cloquet, Minn., "We will be glad to do all we can to get ferrous scrap out of its resting places and into the steel mills. We have gone at it more intensively than ever this year and during the first five months have shipped out 354 tons of scrap, a 125% increase over the same period last year. We will continue our intensive efforts along this line."†

JOHNSON & JOHNSON famous name in the field of surgical dressings and hospital supplies report progress in their campaign to salvage iron and steel scrap; "In our New Brunswick Plant alone, where this campaign is already in progress, we recovered and sold a total of 28 tons of scrap during the months of June and July. Further substantial quantities will be salvaged here in New Brunswick, as well as in our other mills, during coming months."†



AEOLIAN AMERICAN CORPORATION maker of fine pianos, writes: "The piano industry has appointed its own special committee on scrap salvage and we have already inaugurated a very intensive program for salvaging iron and steel scrap. As a result of our salvage activities we have disposed of almost 23 tons of scrap, so that you can see that we have made a pretty thorough campaign on this."†

†*These Scrap Drive reports are excerpted from letters to the American Iron and Steel Institute, Committee on Iron and Steel Scrap.*

USS

You'll find your local scrap dealers listed in the yellow pages of the telephone directory

2-449

UNITED STATES STEEL

". . . some lines are about ready to wash their hands of the whole deal . . ."

TRANSIT starts on p. 86

fare—as long as the present inflationary trend continues.

• **Typical Business**—In its appeals for help, the industry is quick to point out that it is subject to the same economic laws that apply to any other industry doing business today. Virtually every item needed to conduct a transportation business has gone up. Buses cost twice as much as they did 10 years ago. Repair parts, operating supplies such as gas, oil, tires, all have gone up. Labor costs have reached an all-time peak. Higher taxes have been levied by local, state, and federal governments. All these have boosted operating costs to an unprecedented level for all transit companies.

Back in the old days, transit enjoyed a monopoly, or near monopoly, status in the community. As a result, city fathers felt free to load heavy franchise taxes on the transit companies. In most cases these taxes are still levied, in spite of the fact that transit no longer enjoys a monopoly status. It's right up to its neck in a highly competitive market.

In the case of labor, more than 60% of transit's annual operating costs now goes into payrolls. In all other public utility industries—except the telephone industry—labor costs average 25%.

• **Thoughts on Unloading**—All this has set transit management scurrying around for a solution to its problems. Some officials admit that they're about ready to wash their hands of the whole deal. National City Lines, of Chicago, a transit holding company that owns outright or controls the transit operations in 41 cities, has already indicated it is willing to unload some of its unprofitable operations under what is now becoming known as the Bingham Formula (BW—Dec.8'51,p160).

This tag stems from a proposal made by Col. Sidney Bingham, chairman of the New York Board of Transportation, that would get tottering private transit operations out from under. The plan proposes the formation of a public corporation that would acquire the privately owned lines, using 20-year revenue bonds to pay for them. Operation of the transit company would remain in the hands of present private management, but over-all policy would be set by a board of directors representing the city and the bondholders. The "come-on" here is that such a public corporation would be taxfree.

The only alternative seems to be to hand the lines over to the cities and let them figure out the answers.

Photograph by Dixon

Happy the bride...

Few occasions offer a better opportunity than the bridal shower to present a gift that is long remembered . . . and long lasting.

Perhaps that's why so many modern brides are receiving dinnerware fashioned from MELMAC® molding material. Smartly designed in a variety of lustrous colors, this new kind of dinnerware is a delight to own. It lends dignity and charm to any table—at family mealtimes or on special occasions. MELMAC is so break-resistant, so difficult to chip or crack, that it will last for anniversaries to come. In short, it is made for *modern* living and entertaining.

MELMAC molding material is one of several interesting and useful new plastic materials developed by American Cyanamid Company. Its development and use in dinnerware illustrates how Cyanamid research is bringing new values to a variety of products for your home.

AMERICAN Cyanamid COMPANY

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Materials for the Plastics Industry—one of the many industries served by Cyanamid

Aluminum's long life is demonstrated by pots and pans more than forty years old. Durability plus heat conductivity explains why the best cooking utensils still are aluminum!

Aluminum's long life shows up in a 28-year-old cable that's still working efficiently on the Skagit line for Seattle's Dept. of Lighting. Today over 80% of transmission lines now being built are aluminum.

Aluminum's long life enabled this Greyhound bus, placed in service in 1936, to travel millions of miles—and it's still in use! New alloys and design permit Greyhound's modern *Silversides* to exceed this mileage.

The metal that never grows old

Aluminum's long life is one reason why this metal was chosen for the Maytag Washing Machine tub. First cast in 1919, many "originals" are still in use.

THESE BRIGHT, gleaming shoe eyelets are an example of aluminum's exceptional ability to outlast most other materials.

This resistance to time and wear is but one of aluminum's *unique combination of advantages*, which include lightness, strength, corrosion resistance, heat conductivity, light reflectivity, economy.

Because of these properties, aluminum is the most *versatile* of metals . . . and therefore is required in ever greater quantities for today's military and civilian uses. To help meet this need, Kaiser Aluminum is expanding facilities and will soon increase production of primary aluminum 132 per cent.

All the applications shown here are examples of aluminum's long life. Manufacturers are invited to call on Kaiser Aluminum engineers to learn how this advantage, and others in combination, can improve products and reduce costs.

65 Kaiser Aluminum offices and warehouse distributors in principal cities. Kaiser Aluminum & Chemical Corporation, Oakland 12, California.

Aluminum's long life dates back to 1897 in the aluminum dome of Rome's San Gioacchino. Today aluminum assures years of extra life and maintenance-free beauty to farm, home and industrial buildings.

Kaiser Aluminum

A major producer in a growing industry

READERS REPORT

Have to Join?

Dear Sir:

The following is my answer to the Trend editorial "Should the Union Shop Be Imposed?" [BW—Feb.2'52, p136]:

Should my employer tell me as a condition of employment I must join the Masonic Lodge or the Knights of Columbus or the Elks? There is just as much logic to that request as a demand by an employer that every man must join a certain labor organization.

I do not believe the union shop should be forced on one worker in the U.S.A. If labor wants everyone to belong to the union, it should clean up its unions and make them so attractive to the worker that he will fight to join a union.

Labor could even put democracy to work in its unions. We had an example of the union shop being enforced on railroad workers in Ohio: the case of the two Toledo brothers who had worked about 25 years for the New York Central who were forced from their jobs because their religion did not permit them to join a union, and they therefore refused to join.

If the American industrialist knew what was in the mind of the American worker, he would be better off and could conduct many business affairs with a different viewpoint. I think some of our politicians and industrial leaders would gain an education by putting on some work clothes and going out to talk to the workers of this country for a week or two.

Should the union shop be imposed upon American labor, it will be just a little more of our freedom taken away. This inch-by-inch process must be stopped eventually, why not now?

LLOYD H. SIDENER

CLEVELAND, OHIO

Sirs:

Your cogent editorial "Should the Union Shop Be Imposed?" brings to mind some items within our Federal Constitution that would require our Supreme Court to declare a government-imposed union shop illegal.

Efficiency is merely an incidental effect of our government. Its major design is to secure individual liberty, then foster its well-being. Hence government cannot force any person to give his allegiance and/or property to another in order to obtain equality of economic security, however much such an imposition would improve the efficiency of an organization that sought such a favored position. The end result would be a situation in which the government was a party to denying its citizens the equal protection of its laws.

Our government's powers and activities are expressly limited by the Bill of Rights so that individual liberty can be protected. Accordingly, our government cannot bestow any of its power, such as the power to force a person to be subservient to any organization, which is not limited by the same or greater limitations of the Bill of Rights.

Throughout our society there are innumerable so-called "free riders." For instance: The churches could well argue that because of their at least alleged benefits to the community, and to the government in helping to insure domestic tranquillity and promotion of the general welfare, all those not members of the churches and paying their share are, in effect, getting the benefits without helping to carry the load. The union itself is a most notorious "free rider." It pays no taxes. At the same time it gets more and more benefits from the government. Hence it is with particularly ill grace that it brings up the subject of "free riders."

The government's first duty is to keep all men free of the various institutions to which they must look for assistance to the end that the institutions shall be encouraged constantly to justify their existence by the service they render or, in other words, to keep institutions the servants of men rather than allow men to be made the servants of institutions.

KARL HAARTZ

ASSONET, MASS.

Tuna Troubles

Gentlemen:

Your article "Tuna Industry Sends S.O.S." [BW—Jan.26'52,p184] was uncharacteristically one-sided for BUSINESS WEEK. There was no mention made of the fact that American flag tuna clippers operate out of Central and South American ports, and that tuna caught by these vessels are shipped in commercial refrigerated foreign-flag freight vessels and enter the U.S. as imports but not as products of American industry. By deducting this catch from the total number of frozen tuna imports listed for 1950, to take an average year, the resultant figure of imports comes to less than 10% of the total catch.

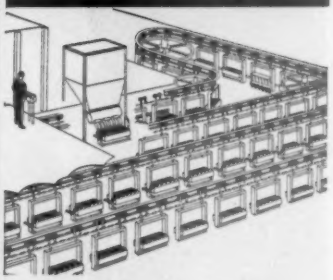
JOHN F. BUDD

PUBLISHER

CUSTOM HOUSE GUIDE

NEW YORK, N. Y.

2 MEN
produce
18 TONS
BRASS INGOTS PER SHIFT



By conventional methods adding 18 tons of ingots to plant capacity would have increased the payroll by 20 men per shift and required considerable more foundry space.

It was done with just 2 additional plant men in a space approximately 50 feet by 100 feet.

HOW?

1. By the scientific integration of processing and materials handling.
2. By designing the plant structure and the integrated processing equipment concurrently, thus eliminating all structural obstacles.

This is a typical MHS project showing what can be done to achieve PRODUCTION CONTROL with maximum economy. If you have such a problem, we might be able to contribute some usable ideas—no obligation, of course.

Mechanical Handling Systems, Inc.

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1 Dr. Paul Schwarzkopf (left), president of American Electro Metal Corp., checks small turbine wheel made from powdered metals. Here's how wheel is made . . .

2 The titanium carbide blank is formed on a hydraulic press.

Powdered

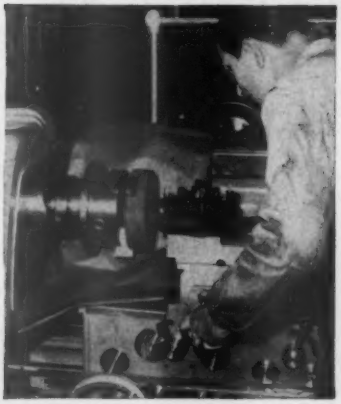
The aircraft gas turbine marched in long strides from the crude, low-power form evolved during World War II to its present comparatively high-power perfection.

This transition was rapid, but it didn't come about easily. And there are plenty of headaches left for designers, metallurgists, and production men. The search goes on constantly for materials to withstand extreme heat and for ways to reduce the extensive, precise machining that adds to the production

5 Buckets are cut from rim of powdered metal wheel. Wheel in this picture will be used for spin test, does not have buckets shaped to airfoil contour.

6 Machined turbine wheel is taken from furnace after final sintering.

3 Blank is removed from furnace after presintering at above 2,000F.



4 Disc is comparatively soft, side faces are machined on a lathe.

Metals for Hotter Jets

load, slowing down delivery schedules.

• **The Wheel**—Take the turbine wheel, one of the jet's critical components. Each wheel carries about 120 individual high-alloy buckets (blades) on its periphery; and most of today's engines have two turbine wheels. Each bucket is anchored to the wheel disc by a serrated "fir-tree" pattern that must be machined into the wheel disc and into the base of the bucket. It's a skilled, time-consuming operation.

These buckets take a high-heat beating. Hot gases from the combustion chamber roar against them with searing, corrosive effects. The best metallurgists are taxing their ingenuity to find a bucket material that will take even more than the 1,500F heat at which the engines now operate.

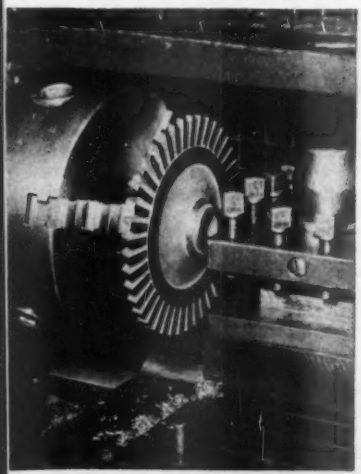
Higher operating temperature is one way to squeeze more thrust (pushing power) from the jet engine. But metallurgical limits on the durability of present metal alloy bucket material offer a high hurdle. The use of hollow, air-cooled buckets is one answer; the use of ceramels (metals plus ceramics) is another. Both approaches are having some success.

• **New Approach**—Now another scheme is being worked out—to boost the turbine wheel's operating temperature, and simplify fabrication as well. The new approach is through powder metallurgy.

Powdered metals aren't new in the aircraft gas turbine field. The material has been used for stator blades (fixed air-guides) in the compressor section of jet engines.

Millions of these powdered metal blades are in use and giving top service. This application, which uses sintered iron powder with copper alloy as a binder, was perfected jointly by American Electro Metal Corp., Yonkers, N. Y., and Thompson Products, Inc., Cleveland (BW—Jan.6'51,p45).

• **Hot End**—This powdered metal blading is in the "cold" part of the engine. Now American Electro Metal in conjunction with Firth Sterling Steel & Carbide Corp., Pittsburgh, is work-



7 End of the line. Side faces of the wheel get a last machining.

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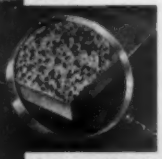

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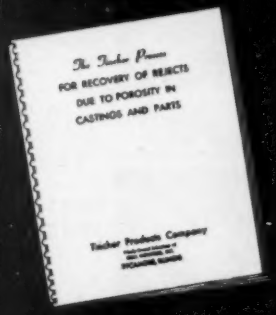

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TINCHER PROCESS

*Castings that weep or sweat under pressure due to microporosity

". . . Schwarzkopf doesn't see any such size limit on the turbine wheel . . ."

PRODUCTION starts on p. 94

ing to extend the use of powdered metals to the hot end—to the entire turbine wheel, where stresses are more rigorous because of high rotational speeds and searing heat. Dr. Paul Schwarzkopf, American Electro Metal's president, is confident it can be done—with benefits of more thrust and simplified production.

Parallel work is being carried on abroad by Schwarzkopf's associates in Austria and Switzerland in conjunction with the Swiss gas turbine company Escher-Wyss. In addition to their work on the powdered metal turbine wheel, these foreign experimenters are aiming to develop a "baby" gas turbine built around the turbine wheel, to serve as test unit.

• **Carbide**—In the new approach, Schwarzkopf is using a different type of powdered metal. The material is a high-temperature titanium carbide cemented with a metallic binder. The titanium carbide is made from titanium oxide, which is not a critical material. Much more of it is available than other conventional alloys for jet engines, which are in short supply.

The binder now constitutes about 40% of the material and includes chromium, cobalt, and nickel. Schwarzkopf says he is aiming to reduce or possibly eliminate these materials, replacing them by more corrosion-resistant, noncritical materials.

He reports that tests have shown that titanium carbide buckets can go to 1,900-2,000F—about 500 deg. more than operating temperatures of today's high-alloy blades. Some engineers believe that this temperature boost could put as much as 40% more thrust in an engine.

• **Shock Tests**—The military have tested this titanium carbide material and, according to Schwarzkopf, have found that it has adequate resistance in thermal shock tests (cycles of hot to very cool).

Tests of corrosion resistance, during which the material was subjected to normal combustion gases up to 2,000 F, showed practically no loss in weight, indicating that there was little, if any, corrosion.

One of the properties that must be investigated, says Schwarzkopf, is strength in cold (room temperature) spin tests. He says that the material actually is more ductile at higher temperatures. For this reason, a more critical test is to prove the turbine wheel at room temperature for brittleness characteristics. If this spin test shows that brittleness isn't critical, there's no danger that the wheel will fail at its top operating temperature.

Ductility is imparted to the material by eliminating porosity. This is achieved by the binder, and by vacuum sintering (heat treatment). Schwarzkopf says the material has 100% density.

Another dividend from the titanium carbide material is its lighter weight. Specific gravity of today's super-jet alloys is about 8 or more; that for the new, cemented titanium carbide is approximately 6—a 25% weight saving. The lighter the turbine wheel, the lower the centrifugal stresses.

• **Pilot Model**—The turbine wheel that is being developed as a proving piece is a small one—to fit an engine with an over-all diameter of about 15 in. and a length of about 3½ ft. The unit is expected to develop the equivalent of 350 hp. at 40,000 rpm.

Schwarzkopf doesn't see any such size limit on the turbine wheel. He says there's no reason why a wheel equal in size to those in present-day jets couldn't be made of the cemented titanium carbide material, using his fabrication method. The only limitation is a special press for the larger parts, and this type of press could be obtained, he says.

• **Single Unit**—Here's the step-by-step procedure for fabricating the turbine wheel: The wheel blank is formed from the powdered material, then presintered at a temperature above 2,000F. The material at this stage is very soft—softer than brass—and easily machined. Buckets are carved right out of the blank on a milling machine, working from a master blade form. Thus the buckets are integral with the disc. There's no need for a root attachment such as the machined "fir-tree."

Excess material is left on the wheel to take care of shrinkage in the sintering operation, which is performed at about 2,500F for 2-3 hr. under high vacuum.

Some final grinding is still required. Schwarzkopf's ultimate aim is to control shrinkage so that after final sintering the wheel will be down to finished dimension.

• **Future Steps**—He's even thinking a step ahead of this. It may be possible, he believes, with some wheel redesign, to press the wheel in finished form, to eliminate all machining. This really would be a production short cut.

At this stage of the turbine wheel development, Schwarzkopf doesn't think cost is the prime consideration—primarily, he's shooting for more thrust via higher operating temperatures. But he does feel that, when the process has finally jelled, production cost will be lower than that of conventional metal turbine wheels today.

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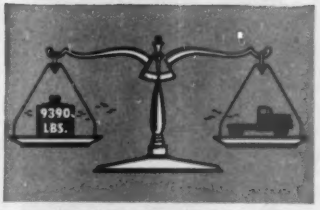
You'll want to look over the great "65" from every angle. See this most advanced engineering job in the industry at your nearest Autocar Factory Branch.



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HIGH-SPEED CAMERA films the motions of a machine operator as Eastman Kodak hunts for bugs in its own machinery. Every motion is counted, timed by camera.

ENGINEER checks film. When he finds waste, he suggests new machine design.

REDESIGNED after film test, this machine increased production by 75%.

Camera Speeds Machines

Eastman Kodak Co., Rochester, N. Y., is taking a leaf from the book it reads to its customers. It uses a fast camera to get split-second movies of its machinery in action.

Machinery manufacturers are concerned with two aspects of their products:

Mechanical design, the inner workings of the machine.

Operating design, the controls used by the human operator.

Of the two, operating design is more frequently neglected, or left to trial and error.

• **Waste Motion**—Now Eastman is coming up with better machines by taking a special movie camera into its plant. The films put the finger on the wasted motions of an operator and the awkward controls of a machine. Then the engineer can improve design for faster, cheaper production.

Applying this technique to one machine, Eastman boosted its output by nearly 400%. Films of another machine suggested that machine controls be changed from toggle-type to push-button switches. The plantwide replacement reduced labor costs about $10,000 a year and made control of the machines easier for the operators.

• **High Speed**—Eastman's camera uses what it calls micro-motion, a speed of 1,000 frames per min., compared with the 960 frames per min. of home and commercial cameras. The slightly higher speed makes the motions look a little slower on the screen.

The projector has a frame-counting device and a reversing switch. An engineer can time each motion of an operator in thousandths of a minute and then double-check the motion by retracing the film.

After a few long looks, the engineer transfers his findings to a two-column chart, representing the operator's right and left hands. The chart breaks down the motions and the time they take. The engineer checks the number of motions against the time required to make one part. He measures these results with the yardstick of a theoretically perfect machine.

• **Suggestions**—The engineer might decide that one costly motion could be eliminated by some jig, fixture, or semi-automatic control. He sketches a suggested replacement. Often, four or more designs are worked out for the same motion. A comparison of these, and their possible variants, shows which is the best in design, labor, and production. He can also double-check on the finished design by making another film.

The design that shows the greatest saving in operating cost isn't always the one that is adopted. Recently, four rough designs of one machine offered savings of from 25% to 90%. The design that cut costs most was complicated, impractical for plant use. Eastman picked a simpler one, where a smaller initial investment outweighed the slight sacrifice in costs. In the long run, its operation was smoother, with fewer breakdowns.

• **Wider Application**—Eastman engineers are sold on their film technique. One said: "We only wish we'd found this out a long time ago." They feel that machines designed this way come very close to the near-perfect performance that Eastman has figured out by regular time-study methods. So far, the technique has been limited to operating designs. But the company thinks the payoff might be even larger if it were extended to mechanical design.

PRODUCTION BRIEFS

Two big forge presses are going up at Kaiser Aluminum & Chemical Corp.'s Newark (Ohio) plant for the Air Force. They'll "dwarf any in operation in the country today." Both are rated around 30,000 tons. They are designed for making large, one-piece structures for aircraft.

•

Hard-to-get-at sulfur will be tackled in two new ways by Freeport Sulphur Co. Hot fresh water melts sulfur underground, but you can't always get fresh water. Freeport will process salt water to prevent equipment corrosion and use that instead. The mining plant itself is mounted on a huge barge that is towed to underwater deposits.

•

A computing laboratory has been set up at Battelle Memorial Institute, Columbus, Ohio. A battery of digital computers has already been installed; and another of the digital type is being built. The aim of the lab: to reduce or replace time-consuming pencil-and-paper work.

•

Using pure gold blocks, Chrysler Corp. and General Motors have developed standards for measuring surface roughness to within 1-millionth of an inch. The blocks will make it possible to match parts from different makers for precision production.

•

Arkansas bauxite, a poor quality ore not used in commercial aluminum production, is upgraded by a U. S. Bureau of Mines' process. The recovery takes about 98% of the alumina, the raw material, out of the ore. It uses low-temperature roasting and magnetic separation.

•

To cut thin slices of metals and minerals, General Electric's research laboratory uses "a cutting wind." A knife blade, running at supersonic speeds, builds up a pocket of compressed air against the material to be cut. Dr. E. F. Fullam of the lab thinks that the wind and not the blade tears materials on a submicroscopic scale.

•

Cellulose sponge production has outgrown du Pont's Buffalo (N. Y.) plant, is moving into another at Columbia, Tenn. The processing equipment will have complete waste treatment to prevent air and water pollution.

•

An odorless paint for walls is the latest to come out of Reichold Chemicals, Inc.'s laboratory (BW—Jan.26'52,p118). The company uses low-odor mineral spirits that are finally deodorized as the paint is being processed.

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NEW PRODUCTS

Jet Blade Tester

Checking jet turbine blades for contour, thickness, tilt, and blade angle is no easy job. You often have to use up to 11 conventional gauges to do the job. That uses up time and high-cost labor. Exploring wholly new methods, Sheffield Corp. has come up with a machine that will check 18 to 26 points on a blade simultaneously and also checks the setting of the blade on its mounting.

The blade sits vertically in the machine between three rows of gauging points. Each row has six little feeler gauges that probe the blade. These gauges are set to measure a theoretically perfect blade. If the blade being tested dosn't come up to scratch, little floats on the scale behind the machine register how far it is off.

Sheffield says another big feature of the machine is its versatility. Without modification, you can measure blades that vary as much as an inch in width, height, or contour.

• *Source: Sheffield Corp., Dayton, Ohio.*

• *Price: About $10,000.*

LPG for Truck Fuel

The use of liquid petroleum gas in truck engines (BW–Feb.9'52,p28) is getting a lot of attention. Actually, there's nothing new about using liquid petroleum gas, but in the past engines converted to LPG tended to lose power. Now engineers think they have got around the problem, and two companies have come up with new LPG engines.

LPG in Reo's truck delivers about the same mileage as a standard truck, but there's a big saving as LP-gas costs about 5¢ a gal. less than regular fuel. The compression ratio is raised to 8.2-1, and the engine has 142 hp. Reo's truck will cost about $426 more than its conventional line.

International Harvester's LPG engine has a boosted compression ratio of 7.7-1. The engine will cost $350-$500 more. International has also replaced its standard gas tanks with dual 62-gal. tanks—so the truck can run 400 mi. without refueling. The company says using LPG will lengthen the life of the motor oil and will keep the engine cleaner. So you will not only cut costs on gas, but also on engine maintenance.

Luxury Carburetor

The 1952 Lincoln will be the first car to use a new type carburetor made by Holley Carburetor Co. of Detroit. Called the Centri-Flo, the carburetor is designed for luxury passenger cars and heavy-duty trucks. It is the first commercially accepted carburetor to have a high-capacity air cleaner mounted in telescope fashion around and almost covering the carburetor. It has a construction—called centerline—that enables the car to start easily even when parked on a steep grade.

Holley also makes a Visi-Flo carburetor for cheaper cars and light trucks. This one has a fuel bowl made of clear glass, which makes for easy checking and servicing.

• *Source: Holley Carburetor Co., Detroit, Mich.*

Quick-Adjusting Hook

A twist of the wrist hooks and unhooks these "quick-connectors" made by Brummel Hook Co., Chicago 40, Ill. The hooks, made out of corrosion-resistant manganese bronze, can be used for almost any sling, safety belt, hoist, and the like. They are available in all sizes and types.

Traffic Speeds Over Final Link of New Jersey Turnpike

With the opening of the northernmost and final section of the New Jersey Turnpike early this year, this limited-access, high-speed highway is now complete for its entire 118-mile length. To traffic between the New York Metropolitan area and points south, the Turnpike is a great blessing. It is easing congestion on some of the busiest roads in the world.

Starting at the west approach of the George Washington Bridge, across the Hudson from upper New York City, the Turnpike skirts the cities of Newark and Elizabeth, and cuts across the state to the southwest. Lower terminus is the bridge across the Delaware River, just below Wilmington.

Owner: New Jersey Turnpike Authority, Paul L. Troost, Chairman; *Chief Engineer:* Charles M. Noble; *Consulting Engineers:* Ammann & Whitney; *General Consulting Engineers:* Howard, Needles, Tammen & Bergendoff.

The recently opened section of the Turnpike, crossing the meadows east of Newark, contains several bridges, including the Chaplain Washington Memorial Bridge, shown above, over the Passaic River. Designed like all of the Turnpike for safe handling of heavy traffic at high speed, this bridge has three northbound and three southbound lanes, separated by a 6-ft mall. In providing the steel superstructure for the bridge and its approaches, totalling 7000 feet in length, Bethlehem fabricated and erected 22,000 tons of steelwork.

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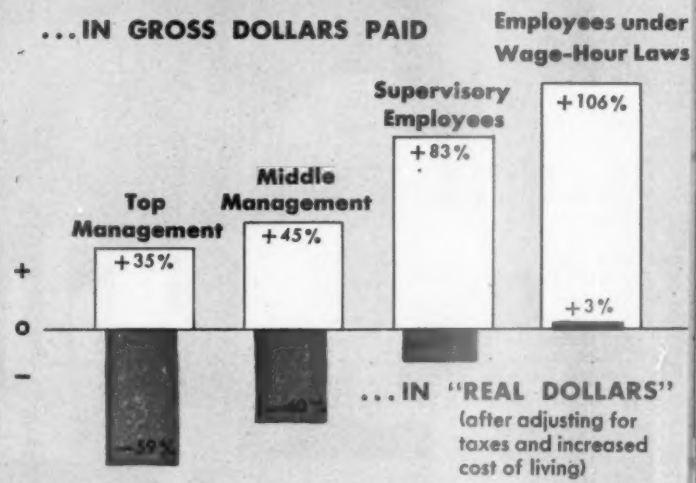
"I was amazed at the number of products displayed at the BIF that hold so much promise to American businessmen," said Mr. Cherne, Executive Director of the Research Institute of America. "There are so many items of value to our domestic market that only a personal visit is adequate."

The 1952 British Industries Fair is held in London and Birmingham, May 5-16. For complete details, write or phone the nearest British Consulate, or; Commercial Department, British Embassy, Washington 5, D.C.

MANAGEMENT

Executives Fail to Match

This is how 1950 salaries compare with 1939...



Data: Arch Patton, McKinsey & Co.: Based on studies of 41 companies.

PAY INCREASES VARY BY INDUSTRY:

In four key industries, these are the gross dollar figures for...

		...1939 average pay	...1950 average pay	Percent gain
PUBLIC UTILITIES	Top Management	$26,500	$33,200	25%
	Middle Management	7,300	11,000	50%
	Supervisory Employees	2,900	5,700	96%
	Wage-Hour Employees	1,900	3,200	68%
PETROLEUM	Top Management	$41,000	$51,500	25%
	Middle Management	9,500	16,300	74%
	Supervisory Employees	3,300	6,200	107%
	Wage-Hour Employees	1,800	3,700	106%
CHEMICALS	Top Management	$53,000	$103,000	95%
	Middle Management	13,000	22,000	69%
	Supervisory Employees	2,300	4,800	109%
	Wage-Hour Employees	1,500	3,300	119%
STEEL	Top Management	$33,000	$50,000	51%
	Middle Management	7,400	12,500	69%
	Supervisory Employees	3,000	5,800	93%
	Wage-Hour Employees	1,700	3,500	106%

Hired Hands in Pay Gains

Looked at individually, top management salaries are mighty impressive—especially if you pick a company like General Motors. Its seven highest-paid officers each made more than $400,000 in 1950 (BW—May19'51,p68).

And stacked alongside the average worker's pay, the salary of the top man in almost any company looks big.

But that's only half the story. In many a big company you will find that since 1939;

• Gross income of both top and middle management has dropped far behind other employee groups in percentage gains (chart, page 102).

• Real income—allowing for rises in taxes and cost of living—for top management has dropped 59%; for middle management, 40%; for supervisors, 13%. But for employees under the wage-hour laws, real income rose 3% between 1939 and 1950 (chart).

• **McKinsey Report**—These are the two major findings of a survey by Arch Patton of McKinsey & Co., management consultants. It is being published in full in the current issue of the Harvard Business Review. This is the second big research job Patton has done on top-level compensation (BW—Jan. 20'51,p90).

Figures from the latest survey, according to Patton, add up to this: If you take into account taxes and living costs, "only management employees suffered a loss in real purchasing power between 1939 and 1950.

Actually, to use the same c-of-l figures for high-paid executives as for rank-and-file workers is not completely fair, since government indexes are based on spending of middle-income urban groups. A 50% rise in the price of eggs, for instance, means less to an executive than it does to a workman. But even though the scale of executive living is higher, top management still has to grapple with the increased prices like everybody else.

• **41 Payrolls**—The McKinsey & Co. survey breaks down the payrolls of 41 leading companies into five groups: Top management includes the highest paid 0.1%; middle management takes in the next highest paid 0.9%; the supervisory group includes those at the foreman level; the fourth and fifth groups—white-collar workers and hourly paid employees—are lumped together in the report as both coming under the wage-hour laws.

Translated into dollars, the pay change in the 41 companies since 1939 stacks up like this:

	Average Compensation		*1939 Equivalent of 1950*
	1939	*1950*	*Incomes*
Top management...	$43,700	$59,300	$18,000
Middle management	10,500	15,200	6,300
Supervisors	3,000	5,500	2,600
Wage-hour workers	1,650	3,400	1,700

• **Shortsighted?**—Patton insists that too many boards of directors (probably thinking about stockholder relations) have been too conservative where management salaries are concerned. That's especially true if you consider increases in profits.

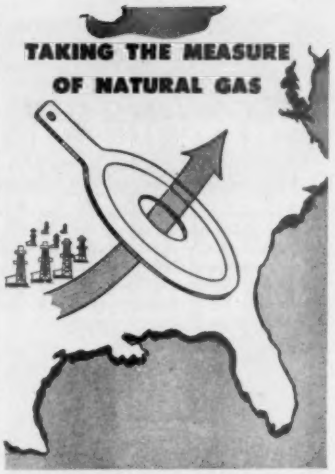
Profits after taxes of the 41 companies in the survey increased sharply from 1939 to 1950. The median gain was 170%, with the highest one-fourth running ahead by 300% or more and the lowest one-fourth up 80% or less.

Then, too, by pinching executive payrolls too tightly, Patton says, some companies may have hurt not only management, but also their own stockholders and the growth of their business.

Patton cites figures in the survey to show that in nine companies directors upped top salaries less than 15% while profits were going up anywhere from 18% to 188%. These nine companies, he says, fell far behind the average in growth: For this group, total employment was up only 25%, against an average gain of 50% among all the companies surveyed.

Looking at it the other way, Patton says five companies raised top-echelon pay 100%—and their growth measured by employment was nearly twice the average. As another example, he cites the case of the top producer in one industry that paid its top and middle management an average of $26,000 and $10,000 respectively in 1950. The No. 2 producer at the same time was paying its top two management levels an average of $68,000 and $16,000—and since 1939 has been growing three times as fast as the top producer.

• **Pay and Profits**—Patton concludes that this relationship between profits and management pay shows up right down the line: The highest-paying companies had the biggest profits. Those that increased salaries 80% or more had an average net profit gain of 360%; those raising top pay 50% to 79% showed profits 230% higher, on the average. Companies in the survey with salary boosts under 20% had only a 118% increase in profits. A few com-



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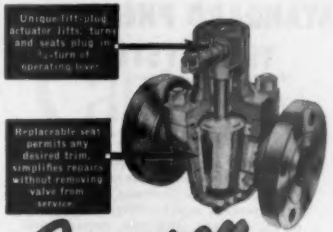
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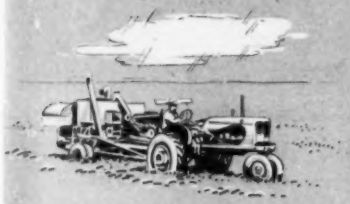

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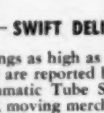


Write for Bulletin No. 11 — Standard Pneumatic Tube Systems. Address Dept. BW-32.

Standard GRAVITY & POWER CONVEYORS

". . . maybe companies that made the most money paid the highest salaries . . ."

EXECUTIVE PAY starts on p. 102

panies that actually cut top salaries made only 60% better profits in 1950 than in 1939.

Of course, you can just as easily read the figures to say that the companies that made the most money paid management the highest salaries. Patton admits it might be construed as a chicken-and-egg question. But he doesn't think that's the way it works.

"It is my belief, based on a good deal of exposure to such data," he says, "that it could be statistically proved that a policy of calling for higher compensation than the average will result in higher profits." The survey figures, however, don't go deep enough to give that statistical proof.

• **Cross-Section**—Besides giving overall averages, the McKinsey & Co. report lumps the 41 companies into industrial groups. Companies included are among the largest in steel, nonferrous metal mining, food, automobile, aircraft, banking, insurance, glass and metal containers, petroleum, public utilities, railroads, and miscellaneous consumer industries.

This breakdown shows wide variations between industries in management pay. Public utilities were far below the average in management pay boosts (table, page 102) and also rank low in profits. (Of course, a big reason for that is governmental control over the industry's earnings.) On the other hand, the chemical industry, which has skyrocketed in profits and growth since 1939, topped the average increase in management pay by a big margin.

• **Danger for Future**—The survey agrees with Crawford H. Greenewalt, president of du Pont, that the 11-year trend toward relatively lower management pay is not so much a present danger as a long-range one. It quotes Greenewalt as saying:

"I doubt that the present financial situation of today's executives will be harmful to the nation's progress. The great question is: Who will take their places? How can we assure competing vigor in the face of greatly weakened financial incentives?"

Patton suggests it is time to think about some limitation in taxes on individual incomes. Even more important, he says, company directors should realize they are partly to blame by being over-conservative, by not taking full advantage of such executive incentive devices as stock options, deferred compensation, and profit-sharing trusts (BW—Apr.7'51,p45).

ECONOMIC THEORY can be taught employees, as in this Cities Service class. More and more companies are interested, but there are plenty of . . .

Pitfalls in Plant Education

Ford Motor official points out that there is no short and easy road to teaching. And the company must have the workers' trust.

A couple of years ago economic education for employees was a minor fad of a few big companies. Today it is permanent top management policy in a growing list of industries.

Republic Steel Corp. saw a sign of the times when it unveiled its program for foremen last year (BW–Sep.8'51, p88). Republic was promptly deluged by inquiries from other companies that wanted to set up similar plans.

• **Ready-Made**—Some of the questions would find a ready-made answer now. The Foremanship Foundation, Dayton, Ohio, recently listed 15 programs that companies could buy and analyzed their good and bad points.

There are plenty of bad points, too. Last week Thomas R. Reid, Ford Motor Co.'s director of information for government affairs, put the finger on some of them at a Chicago meeting of the American Management Assn. What he said, in effect, was: "If it isn't careful, management can fall flat on its face trying to put across basic economic theory to workers."

Reid is all in favor of management's teaching economics to employees. But he warns of "seven management sins" that can wreck the idea. His own company is still shopping around for an economic training course. It wants to avoid the pitfalls Reid pointed out:

• Don't start a program unless you already have a sound human relations program. Management can't put across its story to suspicious workers. A lot of companies aren't ready to launch successful economic education.

• Don't adopt a program that appeals to management, but not to the employees.

• Don't be patronizing, don't "tell before they ask." Reid says that before launching any program management should run a survey to find what the workers want in the course, and what they think of the company and its policies.

• Don't buy the sugar coating, but reject the pills. Reid says: "The sugar coating sounds good—let's educate everybody about the glories of our free enterprise system." The pills: It will take time from production, cost some money, and require a lot of personal attention and interest by top company officers.

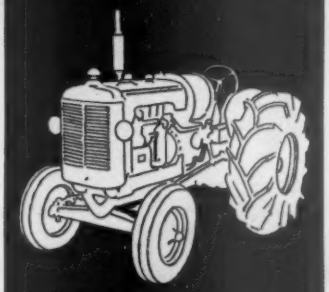
• Don't buy a package and then forget it. As Reid says: "Economic education doesn't come in pretty packages tied up with a neat blue ribbon. Each program has to be tailor-made."

• Don't rush in with a one-shot job, then expect that to do the trick. To be effective, any program has to be a continuing one.

• Don't kid yourself about the results you're getting. Reid says that's probably the most common mistake. He says management should have some objective way of checking whether employees are absorbing its story.

Reid still thinks economic education can succeed if you avoid the pitfalls. He thinks the job should be a fixed part of personnel work. This was his parting shot to the AMA conference: "Words aren't enough."

If You Want
FARMERS



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THREE EXECUTIVES make up part of the clarinet section in Bell Telephone's employee-

DIRECTOR Frederic Kurzweil puts company orchestra through its paces.

MODEL MAKER Bill Krueger of the Bell Labs puffs away at the bassoon.

Extra Harmony for Company R

Music, apparently, hath charms in business just as much as anywhere else. That's the finding of two big companies that have been putting the idea to use: Bell Telephone System in the New York-New Jersey area, and Dow Chemical Co., Midland, Mich.

Both these companies have full-scale music programs open to everyone from stenographers to top executives. Playing side by side in an orchestra or band brings the stenographer and the executive closer (1) to each other, and (2) to the company. Furthermore, when the orchestra puts on public performances, the company gets a lot of goodwill.

• **Bell's Outfit**—The story of the Bell Orchestra goes back five years when a group of employees got together to prepare a concert for a company meeting. The idea caught on; now the

run full-scale symphony orchestra.

LIBRARIAN Violet Bajda from Bell's New Jersey factory doubles as cellist.

Relations

orchestra has swollen to 100 playing members. On Mar. 28, it will present its fourth annual concert in Carnegie Hall in New York. The orchestra has already given its first Voice of America concert, and programs to ECA countries are being prepared in which members of the orchestra will greet European and Asiatic nations in 12 languages.

The orchestra is not company-spon-

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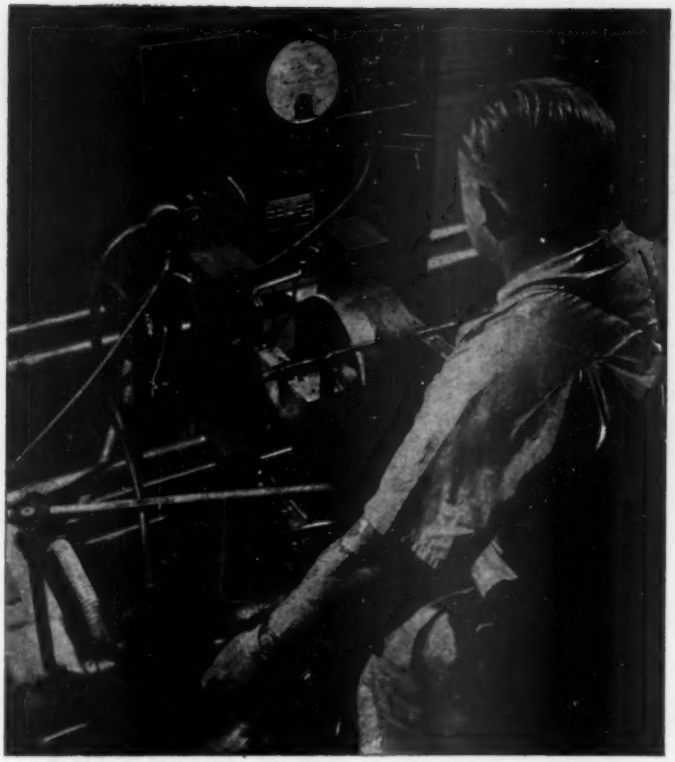

Sure Cure for the Shakes

LET VIBRATION creep in and even the best of production equipment fails to perform; for, like oil and water, vibration and precision just don't mix. Federal controls vibration at the source, with periodic inspection and balancing of all rotating parts. The pulley shown above, for example, is being balanced in a Gisholt Dynetric Balancer; the slightest sign of imbalance draws an automatic signal. Only by such minute attention to detail is Federal able to maintain its high order of precision on the production line—one of the reasons why you can be sure of friction-free performance from every Federal bearing.

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Federal BALL BEARINGS

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DOW PRESIDENT, Leland I. Doan, at the piano, joins the male chorus.

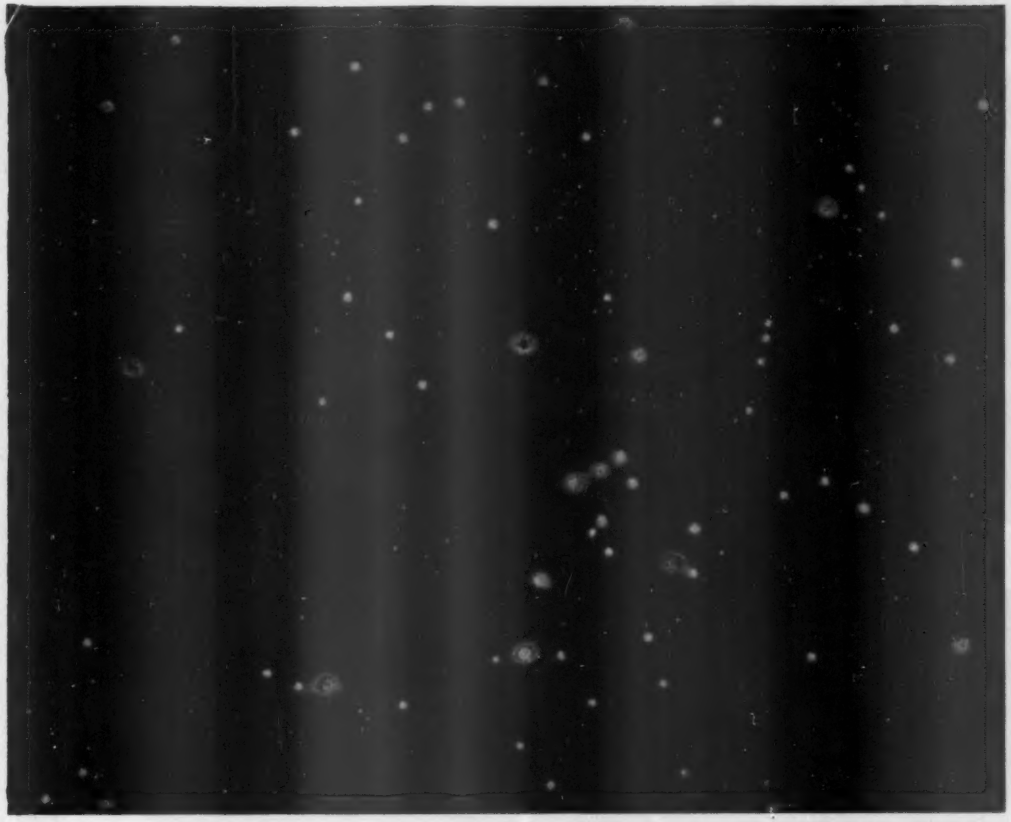
sored, although Bell Telephone is a generous contributor to its yearly budget.

• **Dow's Outfit**—Dow Chemical's program is sponsored by the company, but that doesn't seem to detract from its popularity. The program started 15 years ago. The orchestra and choruses, complete with professional guest stars, perform each year before more than 20,000 people. And because the groups are made up of both company members and townspeople, the program has been a major influence in bringing about good community-company relations.

With funds collected at its concerts, Dow has established a foundation that grants scholarships to music students. The company also contributes part of the salaries of 73 music teachers in Midland county schools and loans instruments to musically inclined students in the schools.

• **The Payoff**—Expense of the program is nothing, Dow feels, in comparison to the goodwill it has created. Many musically trained children have applied to Dow for jobs when they grow up. Dow also says the music program helps conisderably to lure professional men who can't decide between Midland and "big city enticements."

As Dow president Leland I. Doan puts it: "The attraction of music groups is a definite aid in securing high-grade employees." Dow is proud of the fact that executives of many other companies have gone to Midland to study the program with an eye towards setting up similar experiments in their own companies.



Self-defense begins 112 miles up

Battlefields have changed. In the past, wars were fought over a few acres. Today, they encompass continents. Tomorrow, battlefields may be as far-ranging as interstellar space. Even now, powerful rockets search out sky limits, bringing back valuable recorded scientific information, or telling us much, by the patterns of their trajectories, that will help us defend ourselves.

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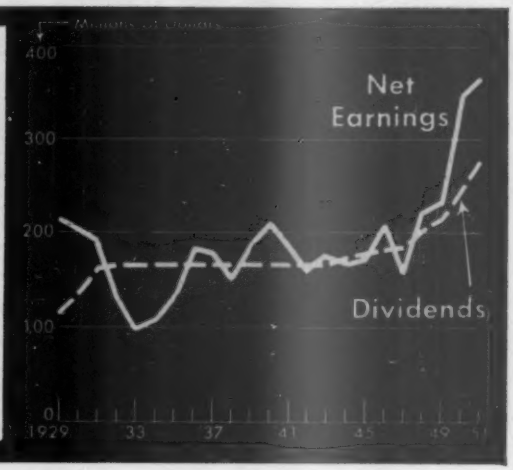
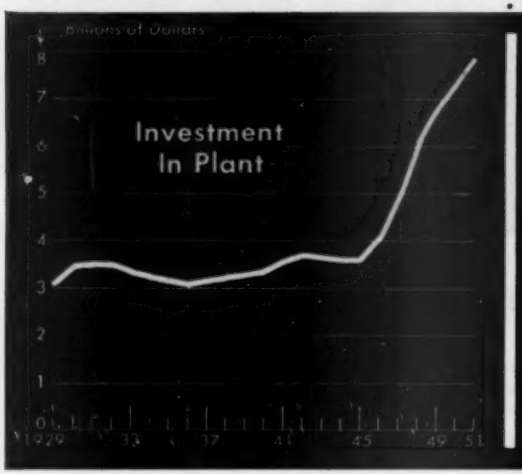
TOMORROW'S PRODUCTS ARE PLANNED TODAY— WITH BERYLCO BERYLLIUM COPPER

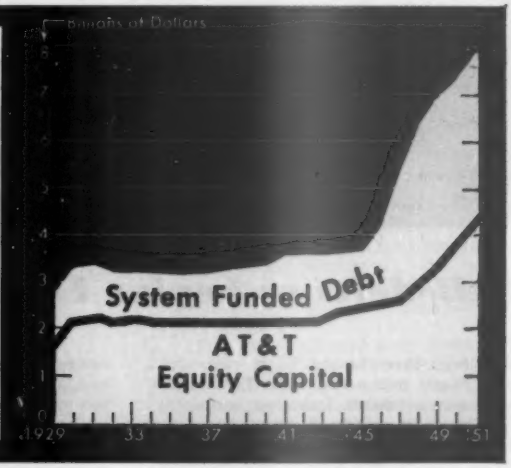
1 **Bell Telephone System revenues hit a new high last year.**



2 **So did AT&T's net earnings and dividend payments.**



3 **But it has been a costly growth, taking billions of new plant.**



4 **Building that has required postwar financing of record size.**

Taxes, Costs Mar AT&T Records

Last year these operating records were set by the Bell Telephone System, the world's largest nongovernmental commercial enterprise.

Revenues exceeded $3.6-billion, a rise of $378-million over 1950.

Net earnings were almost $365-million, a rise of $17.9-million (after deducting earnings applicable to minority interests).

Dividends of about $279.3-million were paid out—$31-million more than the year before.

Assets were over $9.7-billion at the 1951 yearend, including plant valued at $7.9-billion net. In 1950 assets had been less than $8.8-billion, plant only $7.3-billion.

Capital and surplus exceeded $4.7-billion (excluding minority interests). That topped the 1950 figure by $653-million.

But Mother Bell's more than a million stockholders found some unpleasant reading this week, when the 1951 annual report was released by American Telephone & Telegraph Co., top dog in the group. And Cleo F. Craig, AT&T president, commented on some sobering matters.

• **Faster Climb**—Craig told the stockholders that costs remain a heavy worry. They are climbing faster than

The VALUE that cannot be measured...

THIS is the time of year when The Home Insurance Company reports on its operations and progress for the previous year. In so doing, as you will note, we list the physical assets of the company.

One of our most fundamental assets, however, cannot be listed and evaluated in dollars. That asset is the close bond of personal interest and friendship that has always existed between The Home and the policyholders it serves.

This asset has a threefold source. In part, it springs from the very nature of the business in which The Home is engaged. No field of activity is more deeply personal than the field of property insurance . . . the protection of a man's home, his business, his cherished possessions. Another underlying stimulus of this friendly relationship is the natural concern any policyholder feels regarding the company which provides him protection, and his loyalty to a company which proves itself worthy of loyalty. The third source lies in the whole business philosophy of The Home and its more than 40,000 agents and representatives . . . a warm and human way of doing business on the directly personal level; a relationship of *people* with *people*—people supplying service to people with a need for that service.

To the stockholders who own The Home, no asset is of greater value. Every premium payment, every policy, every claim and every benefit that make up the story of The Home for 1951 is a direct outgrowth of that bond of friendly interest.

It is the foundation on which The Home builds.

Sincerely,

PRESIDENT

Balance Sheet

	December 31, 1951
ADMITTED ASSETS	
United States Government Bonds	$ 94,712,097.11
Other Bonds	61,066,023.83
Preferred and Common Stocks	137,331,389.75
Cash in Office, Banks and Trust Companies	34,525,001.17
Investment in The Home Indemnity Company	16,775,982.44
Real Estate	6,804,977.76
Agents' Balances or Uncollected Premiums	19,562,958.04
Other Admitted Assets	4,154,929.80
Total Admitted Assets	$374,933,359.90
LIABILITIES AND CAPITAL	
Reserve for Unearned Premiums	$163,843,315.15
Unpaid Losses and Loss Expenses	33,259,160.83
Taxes Payable	7,500,000.00
Reserves for Reinsurance	1,783,086.36
Dividends Declared	3,600,000.00
Other Liabilities	4,596,351.05
Total Liabilities	$214,581,913.39
Capital Stock	$ 20,000,000.00
Surplus	140,351,446.51
Surplus as Regards Policyholders	$160,351,446.51
Total	$374,933,359.90

NOTES: Bonds carried at $5,514,759 Amortized Value and Cash $80,000 in the above balance sheet are deposited as required by law. All securities have been valued in accordance with the requirements of the National Association of Insurance Commissioners. Based on December 31, 1951 market quotations for all bonds and stocks owned, the Total Admitted Assets would be $371,808,657 and the Surplus as Regards Policyholders would be $157,226,744.

Directors

LEWIS L. CLARKE
Banker

GEORGE MCANENY
Trustee,
Title Guarantee & Trust Company

HAROLD V. SMITH
President

FREDERICK B. ADAMS
Chairman of Executive Committee, Atlantic Coast Line Railroad Co.

ROBERT W. DOWLING
President,
City Investing Co.

GEORGE GUND
President,
Cleveland Trust Co.

HAROLD H. HELM
President,
Chemical Bank & Trust Co.

CHARLES A. LOUGHIN
Vice President & General Counsel

IVAN ESCOTT
Vice President

*Elected January 14, 1952

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EARL G. HARRISON
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CHAMPION MCDOWELL DAVIS
President,
Atlantic Coast Line Railroad Co.

WARREN S. JOHNSON
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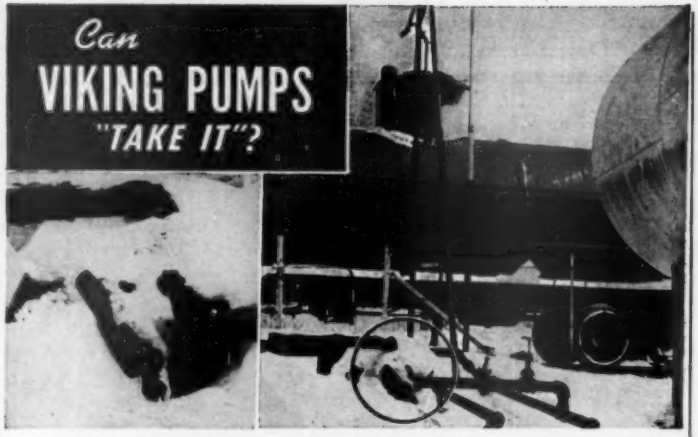

Yes — in any kind of weather or condition, Viking pumps can be built to "take it". A Viking petroleum bulk plant pump is beneath this snow drift. No protection of any kind. It was unloading the tank car of fuel oil in the back ground when the picture was taken.

Your needs for a positive suction, fast, self-priming pump may be entirely different. Whatever it might be, you can choose from the largest line of rotary pumps made . . . Viking. Ask for folder series 51 today.

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February 19, 1952

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telephone rates, despite all the postwar increases. And the company's postwar expansion program—largest in corporate history—requires much new equity capital. As a result, Bell's fiscal position has actually weakened in some respects, despite last year's record earnings.

Take earnings per share. Because of the rapid conversion of bonds into stock, plus sale of new stock, the average number of AT&T shares outstanding rose to 31,028,485; that's 3,442,878 more than in 1950. As a result, system earnings came to only $11.76 per share on the average amount of stock, compared with $12.58 in 1950.

Craig also pointed out that earnings on capital investment were 5.8% as against 6.1% the year before.

Based on the actual amount of stock outstanding at yearend (instead of the average over the year), last year's profits covered the $9 dividend long paid by Mother Bell with only $2 to spare. In 1950 the excess was $3.09.

• **Shared Woes**—Such troubles have two primary causes—payrolls and taxes—that Mother Bell shares with the railroads (BW—Feb.23'52,p166).

Payrolls absorbed well over half of each dollar of system revenue last year. In 1939 they chewed up only 37¢. The company reports that the system's "wage increases alone, in the war and postwar years, have greatly exceeded all increases in charges to telephone users."

Other "employee expenses," not directly felt in payroll costs, are also higher. Last year, Mother Bell reports, approximately $217-million, or 9.5% of system payrolls, was "expended . . . for pension purposes and for sickness, other disability, and death benefits."

• **Rising Taxes**—Federal, state, and local taxes amounted to $629.6-million last year, $130.1-million more than in 1950. These equaled $19.70 on each share of common stock, $2.70 per telephone per month (65¢ more than in 1949), and over 17% of all revenues.

Despite the favored position of utilities under the excess profits tax law, the system's income tax payments jumped 41% in 1951, going from $240.8-million to $339.3-million. Other taxes took $290.2-million—some $31.5-million, or 12%, more than in 1950.

• **What to Do?**—What does Mother Bell intend to do about rising costs?

The effort will be to increase operating efficiency through labor-saving refinements and the like. But the system has no illusions that this will be enough. As it sees the picture, "the full 12 months' effect of the higher levels of expense reached in 1951 will be felt in 1952." Thus costs of providing service will move sharply higher for some time. And to "meet today's steeply rising costs" it sees no "alternative except to obtain increases in rates."

Rate increases granted since 1946

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ALL over the nation along residential sidewalks, you can watch small fry happily brandishing toy guns that look like the real thing.

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To make this possible, high vacuum is created and put to work in DPi metallization equipment. Vaporized aluminum condenses on the lacquer-dipped moldings because there is no air to interfere. It takes only 25 snips of aluminum, less than ¼ ounce, to coat 216 pistols at a time in the DPi high vacuum coating chamber. At this rate, you turn out a tremendous volume of profitable production before reaching the minimum reportable requirements for aluminum.

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Metallized plastic pistols emerging from a DPi high vacuum coater.

Transferring pistols from the high vacuum holding fixture to a dipping tank for lacquer overcoating.

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CAR owners are going to like these bumper guards made from American Anode plastisols. Attached to the bumper, they protrude beyond the steel guard and cushion the car against the banging that goes on every day in parking lots and city traffic.

"Bump-air" is attached to the bumper guard either as a replacement for regulation equipment, or it can be attached to the bumper as an addition by drilling. It will last the life of the car because it has all the advantages of American Anode plastisols.

These versatile plastisols (vinyl plastic paste) can be compounded to give specific qualities: oil-resistance, acid-resistance, chip-proofness. A wide variety of colors is possible, from light to dark. They're economical to use—no fire hazard, no solvents, no recovery system. And they're ideal for dipping, coating or spreading.

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have aggregated well over $500-million annually. Various rate bodies are now considering applications for hikes in the neighborhood of another $200-million, including one of $14-million covering long-distance tariffs.

The system offers figures to show that the rate increases it has already received add up to only about one-third the hike in the cost of living since 1940.

• **Balking**—Nevertheless, in one or two areas there have been signs that local regulatory bodies may no longer prove so amenable as in earlier years.

In North Dakota last week, the public service commission agreed to rate hikes of some $668,742 annually on the plea of Northwestern Bell Telephone for a $2-million increase. New York's Public Service Commission not long ago turned down a request for a rate hike by New York Telephone Co., based on an expected increase in tax rates. In effect, the PSC ruled, "wait until you see how hard you are actually hit and then file your application."

• **Expansion**—Last year the Bell System added 2,070,000 phones, compared with the 1,995,000 gain in 1950 and 2,025,000 in 1949. As a result, there are now nearly 37.5-million telephones in service, 15.5-million more than at the end of World War II.

Yet the postwar expansion program is far from finished. Notwithstanding the over $6-billion spent on plant facilities since 1945 (including more than a billion in 1951), the demand for phone service continues to run ahead of supply. Outlays this year are likely to run around 1951's level if raw material allocations permit.

• **Financing**—Not even the Bell System can handle such expansion from its own funds. More than $2.7-billion of bonds have been sold by AT&T since the summer of 1945. And Mother Bell now is setting the stage for financing the additional expansion that lies ahead.

• **Biggest Ever**—Last week the company announced plans for the largest piece of corporate financing ever attempted: sale of $550-million of new debentures. These bonds will be convertible into stock at the holder's option, as has been the case with so much of Mother Bell's debenture financing in the postwar years. To provide the stock for possible conversion, stockholders at the annual meeting Apr. 16 will be asked to boost authorized common from its present 45-million to 60-million shares.

AT&T has been able to keep debt and stock in balance through its sale of convertible debentures. The convertibles were issued at attractive prices. As a result, the company has been able to swap off funded debt that some day would have to be paid off in cash for stock that never has to be paid off. Due to conversions, the proportion of debt in capital last year dropped from 48% to 44%, despite the sale last March of $415-million of debentures.

• **Reaction**—However, continued issuance of such obligations isn't necessarily popular with existing stockholders. Last week, when the contemplated financing was announced, AT&T shares promptly slid from $157 to $154.

This is understandable. Profits after taxes have to climb as fast as the conversion-boosted common stock issue or the earning power of the outstanding stock is diluted. That's what happened last year when the new shares cut net per share below the 1950 level—despite record earnings.

From the management's point of view, however, such conversions succeed in bringing in new capital. To turn each $1,000 bond into the 10 shares of stock, the holder has to pony up from $380 to $460 of added cash, depending on the issue's conversion terms.

• **Costly**—Despite its advantages, conversion of debentures has its expensive side. And this will continue so as long as management considers Mother Bell's $9 yearly dividend as virtually an inviolable contract. Here's why:

For each $1,000 raised on convertible 2¾s outstanding, for example, AT&T pays only $27.50 "annual rent." When the $1,000 is converted, the $9 annual dividend rate ups this charge to $90 on the $1,400 of new capital then represented. In other words, for those who convert their bonds, the return on their investment has been upped from 2.75% to around 6.43%, and AT&T has to bear the cost of that increase. Moreover, interest payments on the debentures are a charge against earnings before taxes are figured, whereas dividends on new conversion stock aren't.

A Dinar in the Slot

Due to power shortage in Belgrade, self-service elevators now have coin slots. It costs you a dinar (½¢) to go up. And you have to walk down.

The roots grow *deep* in Hometown America

Where the butcher knows the baker—Where housewives pass household hints from porch to porch—It's good marketing for an advertiser to get his own roots deep down into this rich sub-soil.

Every month The American Magazine's unique and wholesome Family Service segregates for advertisers more than 2½ million solid American families who—geographically or psychologically—live in Hometown America.

Because it serves them, because it reflects their ideals, because it has faith in them, these Hometown families make The American Magazine their best-liked, most-trusted publication.

And note: that Hometown America is the wholesaler's best market—that The American reaches more than 2½ million families, 2% bigger, 9% younger, with incomes 38% higher than the U. S. average — that therefore, in The American Magazine, your advertising costs less because it lives longer and grows deeper.

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Most practical for all-purpose use.

Cartridge-Operated
For ordinary fires. No annual recharging.

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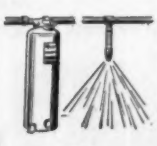

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FINANCE BRIEFS

Personal debts rose faster last year than liquid assets for the sixth straight year, according to the Institute of Life Insurance. They now approximate 55% of the liquid holdings of individuals—against only 52% in 1950 and as little as 25% in 1945. Back in 1939, however, the ratio went as high as 84%.

•

Don't over-invest in common stocks, Joseph W. White, head of the American Bankers Assn.'s trust division, advises those responsible for the investment policies of pension trusts. "We may be reaching the peak of an inflationary cycle," he warns.

•

Beaunit Mills, Inc., has just closed an unorthodox financing deal. From an unidentified investor, it obtained a $3-million 4% loan due next September. Beaunit is obligated to pay off through delivery of goods, not cash.

•

The employees' savings and profit-sharing fund of Sears, Roebuck & Co. held 5,627,801 shares of Sears stock at the end of January. That's almost 24% of outstanding shares.

•

Radio Corp. of America has arranged to borrow another $50-million privately from "professional investing institutions." Already outstanding are $100-million of 3% notes, due 1974, held by Prudential Insurance. The new loan carries a 3¾% rate and comes due in 1977.

•

VA warns veterans: Don't let the purchaser take over your GI mortgage if you sell a house. If the buyer fails to keep up payments, and a foreclosure sale fails to bring enough money to pay the mortgage, you may become liable.

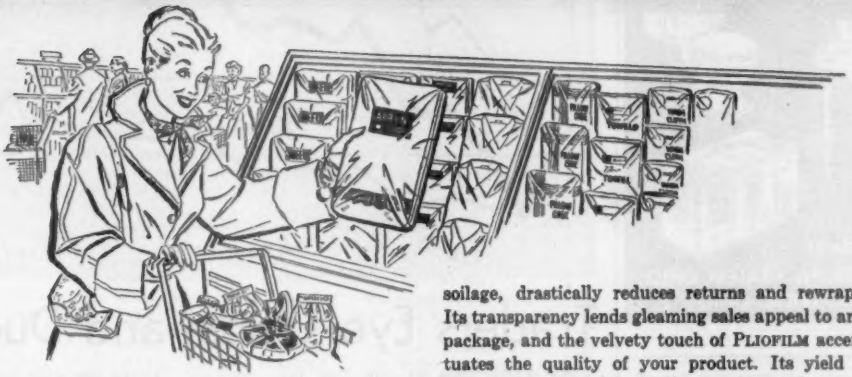
•

Metropolitan Life Insurance Co. still has more assets than any other private corporation in the world, the company reported last week. It also reported that during 1951 it sold $3¼-billion of new insurance making a total of $48¼-billion. Due to rising taxes, its net yield on investments declined to 2.87%, compared with 2.92% in 1950.

•

Financing demands this year, both public and private, should exceed 1951 levels. That's the forecast of the Bankers Trust Co., New York. But it's only because money-market experts expect large-scale federal borrowing after mid-year. Actually, they look for private mortgage borrowing to decline, corporate and municipal financing only to approximate their high 1951 levels.

who says Self Service is not for you?



MAYBE you think your product is unsuited to self-service packaging.

Maybe it's hard to package. Difficult to display. Maybe it's vulnerable to dust, or soilage or rough handling.

But—maybe you've never tried PLIOFILM.

This rugged, clear, moistureproof film—*made only by Goodyear*—has everything your product needs to be a star seller on self-service counters.

PLIOFILM is so strong and tough, it's practically immune to splitting or ripping. It has dimensional stability—doesn't pucker or wrinkle. It eliminates soilage, drastically reduces returns and rewraps. Its transparency lends gleaming sales appeal to any package, and the velvety touch of PLIOFILM accentuates the quality of your product. Its yield is greater than conventional films, making it far more economical to use.

Result: PLIOFILM has scored a resounding success as a self-service packaging material, not only for foods, but for aprons, sweaters, sheets, shirts, towels, —and a wide variety of hard-to-package, hard-to-protect products that had never been sold—or seen—on supermarket counters.

PLIOFILM prints clearly in multicolors, handles easily in packaging machines. For the complete story on this tough, moistureproof material, write for the *free* booklet, "Plain Facts About Pliofilm." Fill out the coupon below and mail it today.

Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

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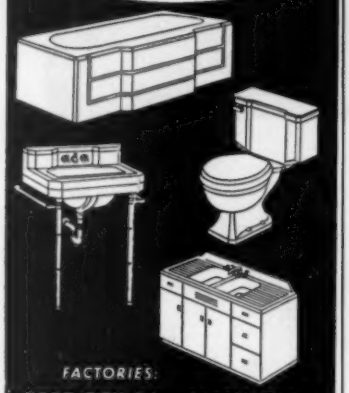

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DIVIDEND ON COMMON STOCK

The Directors of Chrysler Corporation have declared a dividend of one dollar and fifty cents ($1.50) per share on the outstanding common stock, payable March 12, 1952 to stockholders of record at the close of business February 25, 1952.

B. E. HUTCHINSON
Chairman, Finance Committee

MAN HUNTERS

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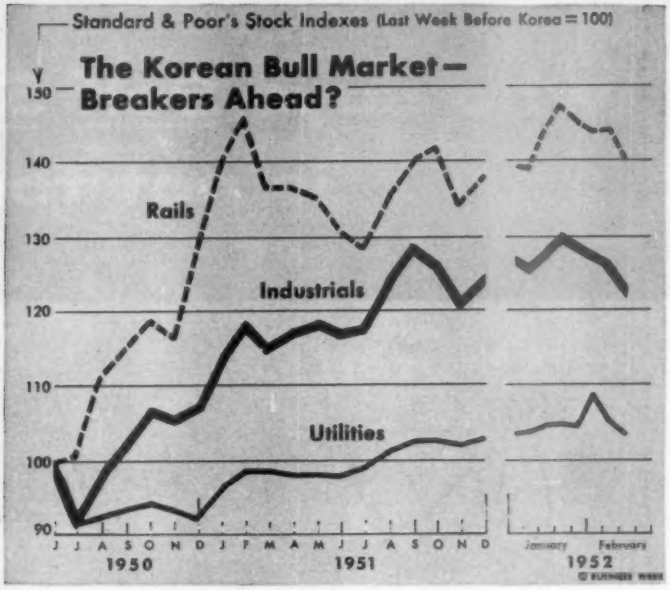
THE MARKETS



Traders Eye Odds—and Duck

It's pretty plain by now that the Korean bull market is entering a new phase. Traders and investors are considering recent developments, trying to decide how these new factors are going to affect earnings and dividends.

• **Shilly-Shally**—Their uncertainty has caused a sharp dip in market prices (chart). Even the utilities, which were relatively unaffected by the two market shakeouts in 1951, have shared in the latest decline. But whether this means more breakers ahead depends on what investors decide about the long-term outlook. They haven't made up their minds yet.

Best evidence of this is what has happened since last week's sharp break. On the day when prices were weakest, trading on the New York Stock Exchange was heavier than any day since Dec. 7. But volume has fallen off since then. There has been no rush to unload stocks.

• **Stretchout and Trimdown**—The newest factor that investors have to appraise is the stretchout of the arms production schedule (BW—Feb.16'52, p21). That has come right on top of a general disappointment with 1951 yearend earnings reports.

Investors had realized, in a theoretical sort of way, that higher income taxes were going to take a terrific bite out of earnings. That's just what happened: 1951 profits after taxes turned out to be some 21% less than in 1950 (BW—Feb.9'52,p19). With some exceptions, companies maintained dividend payments. But investors doubt that they'll do as well in 1952.

Furthermore, consumers haven't been buying. The normal lull in retail sales between Christmas and Easter has been deeper than usual (BW—Feb.16'52,p9). It's not that retail business has been bad, but it hasn't done so well as expected. And retailers' reports show that 1951 earnings were off sharply.

Now comes the stretchout of arms production. Is that going to be good or bad for corporate earnings? There's also the current possibility that the protracted truce talks in Korea might at least lead to something—a thought that has had its effect on commodity prices (BW—Feb.23'51,p176). Finally, there is the imminence of Mar. 15 and the general tightness of money rates—factors that are bad for stock prices.

• **Orderly Boom?**—As the weeks go on, investors may grow more confident. For many economists believe that something new is happening in the U.S. economy—the "orderly boom." They think that the stretchout is going to remove any danger of a violent price inflation and that it will insure a pros-

perous boom at least through 1953 (BW—Feb.16'52,p21). Of course, current tax rates make it unlikely that U.S. business can maintain the profit margins of earlier years. Heavy consumer goods industries, sure of getting more materials for civilian production, will do pretty well. Soft goods makers, plagued by slow demand rather than materials, may not be so fortunate.

But stock prices, as is well known, don't always follow business conditions. Even if the orderly boom occurs on schedule, Wall Street may refuse to believe in it. After the 1946 market shakeout, for instance, it took almost three years to restore Wall Street's confidence in postwar prosperity.

Uncle Sam Gets the Big Bite

U.S. corporations continued to roll up big profits—before taxes—in 1951. And they will again in 1952. But the percentage passed on to the common stockholder is shrinking.

He's in the middle. Higher tax rates skim off the largest share of earnings at the top. And it costs a lot of money to do business—what with new plant to pay for and shrinking working capital to replenish. So the corporation has to siphon off a lot of the earnings left after taxes. This squeezes the common stockholder from both sides.

Last year, as a result, common stockholders were paid a smaller percentage of the earnings that might normally have been considered as available for dividends. In the first half of 1952 the ratio probably will be even slimmer.

The sampling below shows how small, in many cases, the common stockholder's share of earnings really was last year, particularly by comparison with the sums Uncle Sam collected:

				How Pretax Earnings Were Distributed					
	Pretax Profits	Federal Taxes Amount	%	Pfd. Div. Amount	%	Comm. Div. Amount	%	To Surplus Amount	%
Affiliated Gas Equip.	$3,960	$2,152	54.3%	$108	2.8%	$486	12.3%	$1,214	30.6%
Bethlehem Steel	281,631	176,100	62.5	6,537	2.3	38,332	13.7	60,662	21.5
Bullard Co.	7,057	5,525	78.3	—	—	690	9.8	842	11.9
Celotex Corp.	10,665	3,584	33.6	256	2.4	1,317	12.3	5,508	51.7
Cherry-Burrell	2,358	1,141	48.4	215	9.1	366	15.5	636	27.0
Clark Equipment	16,377	11,100	67.8	96	0.5	1,885	11.5	3,302	20.2
Cornell-Dublier	5,186	3,337	64.3	79	1.5	423	8.2	1,347	26.0
Consolidated Vultee	11,551	3,800	32.9	—	—	3,312	28.7	4,438	38.4
Continental Foundry & Mach.	8,785	6,250	71.1	—	—	696	7.9	1,839	20.9
Dyton Rubber	6,255	3,936	62.9	91	1.5	679	10.9	1,548	24.7
Dresser Industries	10,419	5,303	50.9	211	2.0	1,558	15.0	3,347	32.1
Eagle-Picher Co.	9,414	5,710	60.7	—	—	1,371	14.6	2,333	24.8
Firestone Tire & Rubber	124,149	75,750	61.0	509	0.4	13,664	11.0	34,226	27.6
Georgia-Pacific Plywood.	6,477	3,300	50.9	62	1.0	1,135	17.5	1,980	30.6
B. F. Goodrich	113,252	78,509	69.3	1,060	0.9	10,311	9.1	23,372	20.7
Goodyear Tire & Rubber	111,540	74,912	67.2	2,847	2.5	12,392	11.1	21,389	19.2
Graniteville Co.	6,339	3,144	49.6	—	—	1,100	17.4	2,095	33.0
Grief Bros. Copperage	2,956	1,715	58.0	—	—	327	11.1	914	30.9
Hoberg Paper Mills	2,684	1,708	63.6	40	1.5	330	12.3	606	22.6
Koppers Co.	30,982	20,164	65.1	600	1.9	4,043	13.1	6,175	19.9
Libbey-Owens-Ford Glass	49,477	34,000	68.7	—	—	10,288	20.8	5,189	10.5
Mathieson Chemical	21,628	11,975	55.4	125	0.6	4,765	22.0	4,763	22.0
Minneapolis-Moline	13,489	8,140	60.4	594	4.4	1,393	10.3	3,362	24.9
National Distillers	48,537	23,438	48.3	656	1.5	16,291	33.6	8,071	16.6
Oliver Corp.	11,606	5,600	48.3	368	3.2	1,929	16.6	3,709	31.9
Raybestos-Manhattan	15,807	10,950	69.3	—	—	1,884	11.9	2,973	18.8
Saco-Lowell Shops	6,420	3,200	49.8	—	—	1,200	18.7	2,020	31.5
Sonoco Products	4,505	2,829	62.8	25	0.6	430	9.5	1,221	27.1
Struthers Wells Corp.	3,061	1,820	59.5	117	3.8	317	10.3	807	26.4
Sunbeam Corp.	14,526	7,875	54.2	—	—	2,700	18.6	3,951	27.2
Superior Steel	3,852	2,675	69.4	—	—	562	14.6	615	16.0
Union Carbide & Carbon	268,386	164,496	61.3	—	—	72,016	26.8	31,874	11.9
Union Twist Drill	5,667	3,795	67.0	—	—	575	10.1	1,297	22.9
United Biscuit	9,130	4,630	50.7	356	3.9	1,523	16.7	2,621	28.7
S. D. Warren Co.	7,424	5,036	67.8	115	1.6	771	10.4	1,502	20.2
West Virginia Pulp & Paper	23,826	13,500	56.7	579	2.4	3,610	15.2	6,137	25.7
Wheeling Steel	51,055	33,662	65.9	1,800	3.5	4,272	8.4	11,321	22.2
Whirlpool Corp.	8,963	5,517	61.6	—	—	1,351	15.1	2,095	23.3
Whitaker Paper	1,996	1,246	62.4	—	—	240	12.0	511	25.6
Youngstown Sheet & Tube	69,336	38,692	55.8	—	—	10,050	14.6	20,594	29.7

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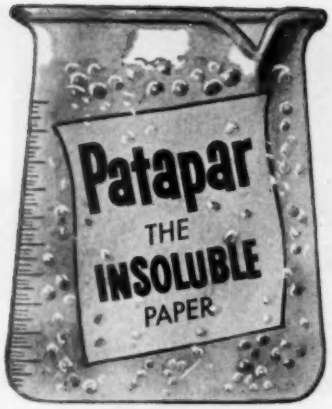

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DEFENSE BUSINESS

Clearing Up Cancellations

Defense Dept. wins right to settle terminations quickly and give contractors their money. General Accounting Office can post-audit only when there is definite suspicion of fraud.

The Defense Dept. has finally wrung an agreement from the General Accounting Office on contract termination policy.

It's not the "firm, fast, and final" policy for which Munitions Board chairman John D. Small was holding out. In effect, though, it will do almost the same job. It means that contractors will be able to clear their plants of government property and get their money settlements without months of delay.

• **None Too Soon**—The new termination policy came in the nick of time for a lot of contractors. With the stretchout of the military program, a number of contracts will soon be canceled. This is particularly true of the Air Force, whose procurement officers last year jumped the gun, let many contracts in anticipation of bigger appropriations (BW—Feb.9'52,p22).

Under the new policy, the armed services can make quick and final settlement on a canceled contract. The GAO does not draw cards unless there is definite suspicion of fraud. In that case it can post-audit the contract termination.

This puts the situation about where it was toward the close of World War II. Early in the war GAO tried to make every contract termination subject to its inspection before the contractor could be paid. As a result, some contractors had their funds held up for months or even years while GAO chipped away at its huge backlog of audits. Finally, in July 1944, Congress passed the contract termination act, which limited GAO scrutiny to cases of clear suspicion of fraud.

• **Effective**—In the present policy, the Pentagon was talked out of writing into the regulation a clause that all terminations would be "final and conclusive." But it has achieved substantially the same thing. Moreover, it has written a tightly worded and detailed regulation that leaves little for the individual services to spell out according to their own contracting policies. This means contractors will get much the same treatment regardless of which branch of the service is dealing with them.

Actually, the new regulation is a refinement and tightening of the joint termination regulation that grew out of the armed services procurement act of 1947. The principal change was the elimination of what amounted to preferential treatment for subcontractors. Now both primes and subs will have to put equal effort into proving their costs. Formerly, the subs got the benefit of the doubt on cost allowances—on the assumption that cancellation worked greater hardship on the smaller subcontractor.

• **Payable**—Defense contractors will be particularly interested in Part 402 (B), which spells out the specific costs that may be paid by the government. The regulation lists 31 such categories of costs. Here are some of them:

• Advertising costs of the contractor to the extent that they can be reasonably allocated to the terminated part of the contract. As a rule of thumb, the government would pay a percentage of advertising costs consistent with the percentage of total business covered by the terminated contract.

• Claims of subcontractors that are common to the terminated contract.

• Depreciation costs for the duration of the contract.

• Costs of plant protection measures.

• Cost of any leases necessary for performance of the contract, less the residual value.

• Initial costs of a nonrecurring nature, which would have been absorbed if the contract had run its full life. These are usually referred to as "starting load" costs and may be due to training labor or to abnormal scrap losses that would have lessened as the workers became more skilled.

• Materials and supplies, salaries and wages.

• **Not Payable**—Section 402 (C) lists 14 categories of costs that may not be assumed by the government. Among them are bad debts, contingency fees, dividend payments, entertainment, depreciation in excess of planned requirements, losses from sales or exchanges of capital assets.

Essentially, a termination is negotiated in the same manner in which a contract is entered. If you and the contracting officer fail to reach agreement,

he can direct a settlement according to his own estimates. Then you have the right to appeal.

On cost-type contracts, the area of negotiation would be in the amount of profit allowable, or the fixed fee. Allowable costs are spelled out in the contract.

• **Review**—Where fraud is suspected, all termination settlements are subject to review by GAO or the service involved.

In any contract where the settlement involves more than $25,000, the contracting officer has to submit his findings to a review board. If it involves more than $500,000, review comes from a high-level board through the service's office in charge of all procurement. Thus the termination of a plane contract would probably be reviewed by a board at the Air Materiel Command at Wright-Patterson Air Force Base, which heads all Air Force buying.

Appeal procedure is governed by the disputes clause of the contractor's contract. If he fails to submit a settlement proposal within the time limit set by his contract, or if he doesn't request an extension of that time, he loses his right of appeal.

GSA Gives Up Role As Sole Rubber Buyer

Step by step, the government is getting out of the rubber business. Two months ago, on Jan. 1, National Production Authority told manufacturers they could make all the rubber products they wanted as long as they didn't go over their natural rubber allocations. General Services Administration followed up this week by turning natural rubber buying and importing back to private industry, starting with June deliveries.

This relaxing of controls was possible, according to GSA administrator Jess Larson, because the U.S. rubber stockpile has reached "safe levels."

• **The Story**—GSA became sole American importer and buyer of natural rubber back in December, 1950. The purpose of this move was twofold: (1) to speed the buildup of the U.S. rubber stockpile, and (2) to check runaway world prices.

Natural rubber, at that time, was selling at about 80¢ a lb. Five days after GSA stepped in, it announced it would sell rubber to industry for 66¢. The world price began to drop. By last month GSA had cut the price to 50½¢. On the world market at Singapore, top-grade rubber last week was down to 38¢ (about 40¢ landed in New York). This week—probably as a result of GSA's bowing out—the price had dropped to 35.5¢.

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Gains and Losses

Essential nonindustrial construction will benefit, as Washington takes a tuck in industrial expansion.

The mobilizers are beginning to back up their recent policy decision to keep the lid on industrial expansion in favor of nonindustrial work (BW—Feb.23 '52,p19).

In the last few days the controls officials:

• Cut structural steel allotments for new plant and equipment in the April-June quarter 26% below the January-March level.

• Gave the green light for a start on 646 community buildings—churches, police and fire stations—in the second quarter.

• Ended the freeze on commercial structures that were less than 20% completed when the allocation program went into effect. Starting July 1, 186 buildings in this category—all with foundations or more started—will get materials to finish up.

• **Conservation**—The hold-down on industrial construction, Washington says, is intended to conserve copper and other scarce materials needed to equip new plants, more than brick, mortar, or even still-tight structural steel. In fact, supply of some types of structurals, the lighter shapes that will suffice for all but the heaviest structures, now is close to demand. That's another reason why controls were easing on nonindustrial construction: In addition to needing much less copper for equipment, most such projects can get by with the lighter structurals.

The cut of 95,000 tons of structurals to a total of 265,000 tons in second-quarter allotments for industrial facilities means that no new plants can be started except those that qualify as urgent for direct military requirements. The bulk of the allotment will go for plant already under way.

• **More Tucks**—Mobilization officials are talking of getting even tougher on new plant. Their estimates of allotments for the rest of the year are for only 225,000 tons of structurals in each of the last two quarters. This is in line with the go-ahead given to the $126-million of commercial and $218-million of community buildings, which have been assured of sufficient materials for completion after the second quarter.

Other second-quarter structural allotments followed closely the same pattern:

Steel for highways went up 15,000 tons above the first-quarter allotment to 70,600 tons; schools got an extra 3,000 tons for a total of 29,205; maintenance, repair, and small self-authorizing projects got 112,000 tons, more than three times as much as they got in the first quarter.

CHECKLIST:
Defense Regulations

The following listing and condensed description cover all the materials and price-control regulations issued by defense agencies in the preceding week.

Full texts of the materials orders may be obtained from National Production Authority, Washington 25, or any Commerce Dept. regional office.

Full texts of the price orders may be had from the Office of Price Stabilization, Washington 25, or from the regional OPS office in your area.

Materials Orders

Poly tetrafluoroethylene: Removes allocation control over this plastic material (Teflon). M-45, Sched. 2 revoked (Feb. 20).

Hides and skins: Revokes orders regulating sale and purchase of cattle hides, calfskins, and kips as well as processing of cabretta, shearling, kangaroo, imported goatskins and sheepskins. M-35 and M-62 revoked (Feb. 20).

Pricing Orders

Studebaker: Increases basic retail dollars-and-cents prices for 1952 Studebaker passenger automobiles and for factory-installed extra, special, or optional equipment. CPR 83, Sec. 2, Spec. Order 15 (eff. Feb. 15).

Navy special fuel oil: Sets specific ceiling prices that blenders and refiners of Navy special fuel oil may charge in stated areas for cargo lots sold to the armed services' petroleum purchasing agency. CPR 17, SR 5 (eff. Feb. 15).

Poles and piling: Establishes price ceilings for standard dimensions of untreated Douglas fir and ponderosa pine poles and pilings produced on the West Coast. CPR 126 (eff. Feb. 25).

Metal castings: Permits an upward adjustment in ceiling prices for zinc-base die castings because the industry's earnings are below the minimum required by the industry earnings standard. CPR 60, Amdt. 5 (eff. Feb. 19).

White potatoes: Grants a "disaster adjustment" increase in the ceiling prices of winter storage white potatoes grown in Idaho, Colorado, Wyoming, Nebraska, and Montana. CPR 113, Rev. 1, Amdt. 3 (eff. Feb. 21).

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Koroseal Flexible Materials

SEN. HUMPHREY is studying possible legislation, while court rulings also put . . .

Red Unions Between Two Fires

It'll be tougher for Communist-led unions to keep their toeholds in industry when Congress and courts team up against them. There's action now on both fronts.

Communist-controlled unions still cling to important toeholds in many industries. They've been especially tenacious in shipping, nonferrous metals, and electrical manufacturing. However, the heat is now being put on them from two directions:

• Congress is warming up for some sort of action. The Senate labor subcommittee headed by Sen. Hubert Humphrey (picture) has polled a cross-section of experts for advice on what to do about Red-dominated unions.

• The courts are backing up employers who take a tough line toward Communist-led unions. Stewart-Warner Corp. has just won a Circuit Court of Appeals ruling that upholds the company's right to recognize an anti-Communist union rather than a left-wing one.

• **Congress**—Sen. Humphrey's committee took suggestions from the ranks of labor, management, government, and the public. Policies suggested most frequently were: (1) Pass a law, (2) take stronger administrative action against left-wing unions, (3) let unions finish clearing out pro-Communist groups themselves.

The committee's activity is regarded in Washington as a good sign of a drive in Congress for legislation aimed specifically at left-wing unions.

• **Stewart-Warner**—The federal court decision in the Stewart-Warner case opens the way for quicker, more direct action by defense industries.

Stewart-Warner probably went further, and risked more, in its opposition to a left-wing union than any other employer has dared. In June, 1949, it canceled a contract with the United Electrical Workers as bargaining agent for 3,000 employees in its Chicago plant. And it actively supported the anti-Communist International Brotherhood of Electrical Workers (AFL) in a National Labor Relations Board election a month later.

At that time UE was still in CIO, but already was under strong criticism for hewing to the Communist line. It was also bargaining with the company on terms of a new contract.

• **Fast Sequence**—Stewart-Warner canceled its pact with UE because, it said, negotiations were getting nowhere. Then in quick succession:

(1) It circulated petitions through foremen and supervisors, urging workers to vote for the IBEW as bargaining agent. "We believe that any other vote action would constitute a vote for UE and for communism," the company said.

(2) It published articles in the company newspaper urging support for IBEW, repeating charges that UE had consistently followed a Communist line.

(3) It discharged the UE's local president and two others for "disciplinary" reasons.

(4) It barred UE from circulating petitions against IBEW in the plant.

• **Calculated Risk**—The company took a chance that its actions might be construed as unfair labor practices, punishable under the Taft-Hartley act. But it had this advantage: At the time, UE couldn't appeal under T-H—its officers hadn't signed the required non-Communist oaths. However, discharged employees fronted for UE to bring charges as individuals, as permitted under T-H.

Later, the International Union of Electrical Workers, CIO's successor to UE, made similar charges against the company—not intended to back UE, but to bar Stewart-Warner from dealing with IBEW while IUE sought to move in.

In two years of complex NLRB proceedings, the Communist issue got sidetracked. The board decided that the company erred in not treating all unions alike.

Specifically, it said, IBEW had been permitted to circulate petitions, and UE had not. The board held that T-H requires "parity of treatment" even for a noncomplying union.

The company appealed NLRB's decision.

• **Red Issue Raised**—When the Circuit Court of Appeals heard the case at Richmond, Va., the company brought the Communist issue to the fore again. It argued:

• UE, at Stewart-Warner, "was not merely Communist-dominated, but an agent of the Communist Party," and its activities weren't confined to legitimate union affairs.

• T-H isn't intended to "protect all concerted [union] activities, but only legitimate activities." The law should not be used "as a shield to protect those who are carrying on activities in behalf of a Communist-dominated union."

• Nothing in the law protects "membership in or activity in behalf of such a union. Such people are removed from the protection of the law."

Stewart-Warner hoped for a clear-cut

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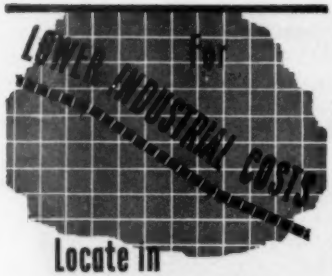

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decision from the court based on the Communist issue. It didn't get one in outright, quotable words. Despite that, the opinion is very important as precedent.

It upholds Stewart-Warner and, significantly, does not punish the company for its anti-UE conduct.

• **Court Opinion**—The court held Stewart-Warner was right in allowing the right-wing IBEW to circulate petitions. And it held the company was also right in refusing to permit "members of the noncomplying Communist-infiltrated union [to circulate] petitions."

"There is nothing in [T-H] that requires an employer to permit his premises to be used by employees for activities in contravention of the spirit and purpose of the act," the court said. "The company was under no obligation to recognize or deal with the UE even if it had obtained a majority and, a fortiori, was under no obligation to permit adherents of the UE to use its premises to foment discord and dissatisfaction."

The court also ruled that "assistance given IBEW [by the company], while it might have invalidated the election, did not disqualify IBEW as bargaining agent" when it was finally proved to represent a majority of employees. If IUE can seriously dispute IBEW's majority, it can do so by petitioning for a new election, the court said.

What's Happening to the Cost of Living

	Total Cost of Living		Food		Clothing		Rent	
	Old	New *	Old	New *	Old	New *	Old	New *
January, 1941	100.8		97.8		100.7		105.0	
January, 1942	112.0		116.2		116.1		108.4	
January, 1943	120.7		133.0		126.0		108.0	
January, 1944	124.2		136.1		134.7		108.1	
January, 1945	127.1		137.3		143.0		108.3	
January, 1946	129.9		141.0		149.7		108.3	
January, 1947	153.3		183.8		179.0		108.8	
January, 1948	168.8		209.7		192.1		115.9	
January, 1949	170.9		204.8		196.5		119.7	
January, 1950	166.9	168.2	196.0	196.0	185.0	185.0	122.6	129.4
January, 1951	181.6	181.5	221.6	221.9	199.7	198.5	126.0	133.2
February	184.2	183.8	226.0	226.0	203.2	202.0	126.8	134.0
March	184.5	184.5	225.4	226.2	204.6	203.1	127.3	134.7
April	184.5	184.6	224.6	225.7	205.2	203.6	127.7	135.1
May	185.4	185.4	226.7	227.4	205.7	204.0	128.0	135.4
June	185.5	185.2	227.0	226.9	205.5	204.0	128.3	135.7
July	185.8	185.5	227.5	227.7	204.9	203.3	128.8	136.2
August	185.6	185.5	226.4	227.0	205.2	203.6	129.3	136.8
September	186.5	186.6	226.3	227.3	210.7	209.0	130.0	137.5
October	187.8	187.4	229.2	229.2	211.0	208.9	130.8	138.2
November	189.3	188.6	232.1	231.4	209.9	207.6	131.4	138.9
December, 1951	190.0	189.1	233.9	232.2	209.1	206.8	131.8	139.2
January, 1952	**190.2**	**189.1**	**234.6**	**232.4**	**206.7**	**204.6**	**132.2**	**139.7**

*BLS has revised its formula for computing the cost-of-living index (BW-Mar. 10, '51, p112). Since the old index is still widely used in labor-management bargaining, BLS will continue issuing both sets of figures at least through 1952

Data: U. S. Bureau of Labor Statistics.

C of L Flattens After Steady Rise

The Bureau of Labor Statistics' monthly cost-of-living index leveled off in mid-January after jumping sharply for four months in a row. The "old" index still in general use in industry rose 0.2-point to 190.2; the "new" index remained unchanged from mid-December's 189.1. The scant 0.2-point rise was enough to give a 3¢-an-hour increase, instead of 2¢, to auto workers who have a mid-January c-of-l wage adjustment date. They'll get the extra cent because auto contracts call for an 0.8-point "correction" in BLS' original index and for a 3¢ raise when the "corrected" index reaches 191.0.

The latest index figures represent a 4.7% increase in c-of-l on the "old" basis (4.2% on the "new") since mid-January, 1951.

White-Collar Strike Backfires

When Prudential's agents walked out in December, unions hoped the strike might sell unionism to other salaried groups. If anything, it had the opposite effect.

The nation's biggest white-collar strike so far ended last week when Prudential Insurance Co. district agents returned to their jobs. For 81 days they had shown an aggressiveness and strike-consciousness seldom found outside the tougher unions of industrial workers. Union hopes ran high during that time for a rapid spread of unionism among salaried workers. But when it was all over, those hopes were dashed.

The settlement terms made the difference. The strike was to have established the great value of union representation; instead, it boomeranged. White-collarites came out more wary of unionism than they had been to start with.

• **Out 81 Days**—AFL's Insurance Agents' International Union called a strike among Prudential's 15,417 district agents last Dec. 1, when contract talks deadlocked. Of the 12,089 agents reported to hold union cards, 10,284 stopped work.

The strike was solid from the beginning in cities like New York and Chicago with long records of industrial unionism. It got little or no support in smaller cities and rural districts; its effects weren't noticeable at all in the South and Southwest.

In the industrial areas, strike lines continued strong for the duration of the walkout. In outlying districts, however, agents tired of the strike as the weeks dragged on. By the end of the walkout last week, the original 10,284 strikers had dwindled to 9,118 by union reports, less than 8,000 by the company's count. But for an 81-day strike, that's really not a surprising decline.

• **Bones of Contention**—The insurance agents' union struck Prudential for a $20 increase in the company's minimum weekly pay guarantee; $10 a week for auto expenses; $10 a week for servicing policyholders; a union-shop contract; and an end to company rules barring outside work.

Prudential's last offer before the strike was a $3.45-a-week increase in commissions; a noncontributory pension plan—retroactive for one year—that would save agents $3.14 a week in contributions and give back about $150 each of them paid into the pension fund in 1951; and more liberal vacation and "fringe" benefits.

• **What Happened**—The union flatly rejected this offer as inadequate and unsatisfactory. It later cut its demands to an average increase of $7.50 a week. Then, two weeks ago, it "compromised" with Prudential, accepted an average $5.36-a-week "package" increase.

Included in it are a $4.50 raise in pay and a slight boost in commission rates that will add an average 73¢ more to weekly earnings. Also, the company will increase vacation pay by the equivalent of 13¢ a week on the average for each agent. It will give them the $150 lump sum payment it offered in prestrike bargaining—as a bonus for signing.

• **The Hitch**—But—and this makes a big difference—agents will continue to pay the $3.14-a-week contribution for pensions instead of letting Prudential take it over, as the company had offered. The agents wanted the contributory plan continued because, they said, it would mean more adequate retirement pay.

Union officers described the settlement terms as far better than anything Prudential had offered before. Strikers accepted the union's recommendation to sign a two-year contract by a 4,331-to-2,659 vote. But they grumbled that 11 weeks of strike idleness had won them little or nothing that Prudential hadn't been willing to give in prestrike bargaining.

• **Who's to Blame?**—The strikers blamed Prudential, of course, for not bargaining on anything more satisfactory than "these miserable, meager, and dishonorable" terms. But they also blamed union leadership—and strongly—for (1) the timing of the strike, when the union couldn't count on the support of Prudential's 11,000 "home office" employees—the clerical force that kept the company's operations on a nearly normal basis; (2) the lack of "real" leadership by union officers who, many agents complain, got them out on a limb and left them there; and (3) the failure of other AFL unions to back the white-collar walkout by concrete action rather than just token financial aid.

About half the returning strikers were openly dissatisfied with the conduct of the strike—and unionism generally—on their return to work.

• **Psychological Effect**—That doesn't mean that union strength will ebb greatly at Prudential, although the dissatisfaction can't help but hurt the AFL union structurally. It will undoubtedly lead to CIO efforts to move in, and counteractive efforts by the AFL union to mend its organizational fences.

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for non-gamblers

Heater or headlights . . . it can be a gamble when the knobs are all aslant. United-Carr's handsome new control knob, however, has a separate inside core, stamped for identification and internally slotted to interlock with the end of the control shaft in a level position. The knob's outer shell is threaded, screws onto the shaft, won't shake or pull loose. Result: all knobs on the dashboard stay straight, level and readable.

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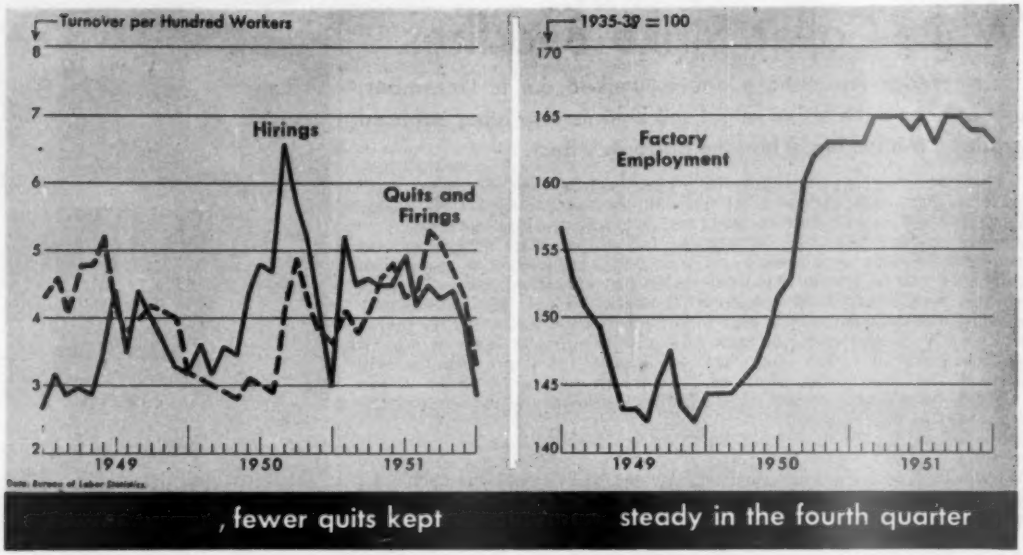
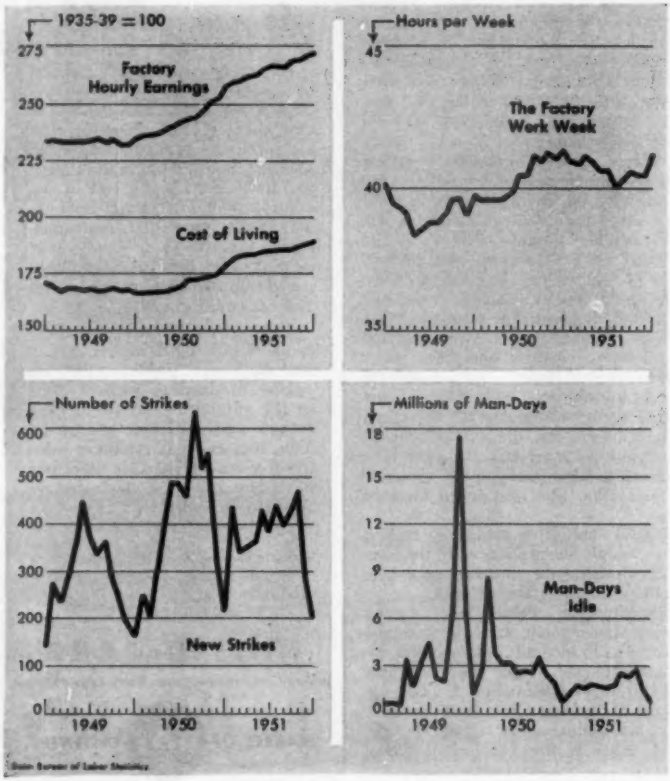


A Quick Appraisal of the Labor Market



The continuing relative stability of factory employment highlights BUSINESS WEEK's labor-market balance sheet for the last half of 1951. Temporarily, at least, the sharp employment gains that marked the early Korea period are over. Now only minor fluctuations show up.

New hirings dropped to 2.9 per 100 of employment in December—the lowest accession figure since April, 1949, during the pre-Korea days when production slackened briefly. At the same time, total separations—quits and firings—also dropped to a 1951 low of 3.3 per 100 during December, continuing a last-quarter downtrend.

There were some signs of defense unemployment, however. Quits and firings went up sharply in August and September—reaching a high of 5.3 per 100—under the impact of Detroit and other industrial layoffs.

In other respects, last-half charts for 1951 reflect continuing trends (BW—Aug.25'51,p38).

I. Earnings and Costs

The influence of the government's wage stabilization program can be seen in the chart comparing average hourly earnings with the cost of living. During the first half of 1951 living costs rose 2% while average hourly earnings went up 3%. In the last six months of the year living costs went up another 2.4% while earnings rose 2.2%.

In the last quarter of 1951 living

"OH-OH, DAD...A FLAT TIRE!"

"WE sure have one, Johnnie—but we'll switch to the 'spare' in a jiffy and be on our way!"

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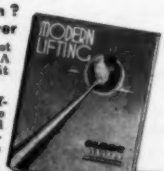
For helpful data on Self-Leveling Ramps, Machine Loading Lifts, Industrial Truck Service Lifts, Production Lifts, etc., write for Bulletin BW-404.



GLOBE OiLIFTS
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(Factories at Des Moines, Iowa and Philadelphia, Pa.)

costs increased by 1.9% and earnings by 1.4%.

II. More Hours Worked

Hours worked reached a year's high in December, when factory workers averaged approximately 41.2 hours a week. The December peak is seasonal, though; high points in 1949 and 1950 also were reached in the last month of the year.

Although workers put in longer hours during the first half of 1951 than in the corresponding period of 1950, their hours of work for the last six months of 1951 trailed substantially behind the first six months and also the last half of 1950.

III. Strikes Decline

As usual, the number of new strikes reached a year's low in December. The Bureau of Labor Statistics recorded only 200 new walkouts for the month—the smallest number in two years. Only 900,000 man-days of idleness were reported, the lowest strike loss for any month since February, 1949.

For the year BLS reports 4,650 strikes in 1951, as compared with 4,843 in 1950. But the 1951 strikes were smaller and generally lasted a shorter time. They caused only 22,600 man-days of idleness as compared with 38,800 for the preceding year. The year's total was the lowest since World War II.

WSB Sets Pension Plans Free

The wage board rules that pension and profit-sharing setups are out from under pay ceilings. Rules covering commission earnings are also set up.

The Wage Stabilization Board made another deep slash in its top-heavy case load last weekend by exempting most employee pension and profit-sharing plans from pay ceilings. It ruled that any plan that fits into present industrial patterns may be put into effect without awaiting WSB approval.

Earlier last week WSB also issued long-awaited rules covering commission earnings. In essence, these rules apply WSB's cost-of-living formula to such workers as milk-route drivers and bakery-truck drivers.

• **Pension Policy**—WSB agreed unanimously that the money paid by employers for an employee pension plan needn't be counted against the allowable wage increase under federal controls, provided:

• The plan calls for "normal" retirement at 65 or later and scales down benefits to be paid for an earlier retirement. In the case of permanent and total disability, payments may be started before age 65 and benefits need not be scaled down so far as in other cases of early retirement.

• Payments must be spread out "over the lifetime of the employee" after he retires.

• An employee who retires early with a vested interest in a pension plan can't cash it in. He must wait until normal retirement time, then take the usual spread-out payments. This bars any "unstabilizing" quick payoff plan, WSB pointed out.

Significantly, the board did not limit the amount that employers can pay into pension trust funds, or the amount of benefits that employees can receive. The board said employers and unions are now "sufficiently educated" on the risk of poor pension planning so that they will exercise "a large measure of self control" on costs and benefits.

The board is trying something new in its handling of pension plans. By not putting any ceiling on employer contributions and payable benefits, it hopes to avoid setting up targets for unions. In the past, WSB's "ceilings" have soon been converted by unions into "floors" for bargaining—the minimum they will accept, and the starting place for efforts to get even bigger amounts O.K.'d by the board on a "special case" basis.

• **Sharing Profits**—WSB also ruled out lump-sum payments in approving profit-sharing plans that provide for deferred compensation—that is, plans under which the employer contributes a share of profits into funds that provide retirement, disability, or severance-pay payments.

The same rules cover retirement and disability benefits under profit-sharing plans. Severance payments are barred under the new WSB rules until an employee has been covered by a plan for at least 10 years; payments made after that must be spread out over at least 10 years.

The board warned that Bureau of Internal Revenue requirements also must be met. Until BIR has accepted either a pension or a profit-sharing plan, any authorization from WSB is only tentative.

• **Self-Administering**—For the most part, the new rules make pension plans self-administering. You report your new plan, or proposed changes in an old

How Many in 1952?

You can help maintain steel production . . . for military and civilian needs . . . by salvaging your iron and steel scrap—*now* and regularly.

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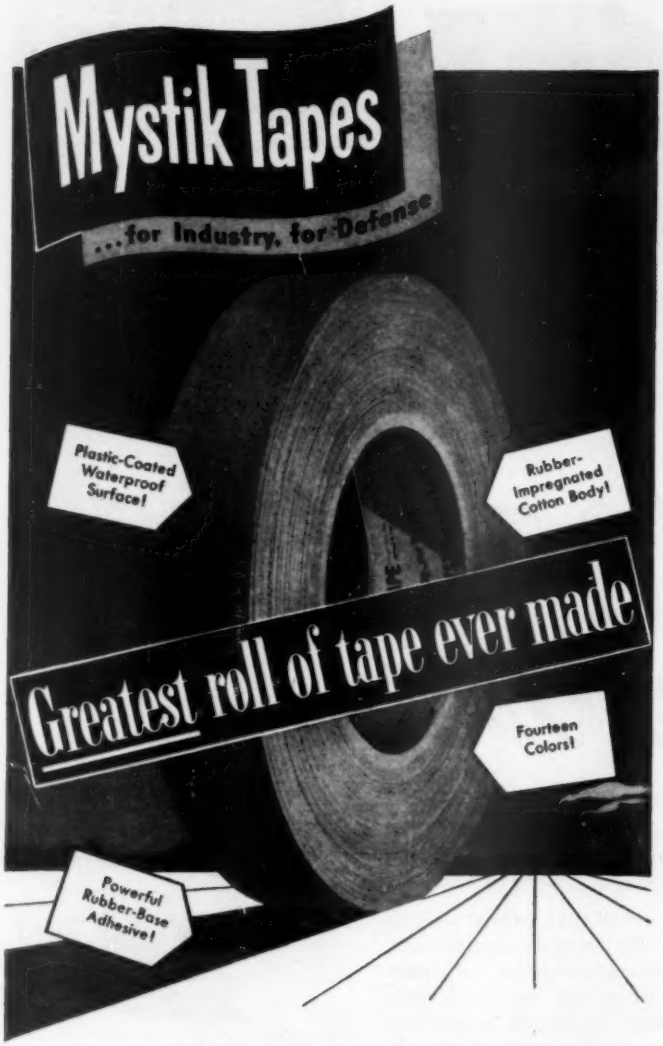

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one, to WSB on a prescribed form. You will be notified of its receipt. Thirty days after the date of that notice, you may put the plan into effect if you haven't been notified not to by WSB —which may want to check it further.

A profit-sharing plan must be approved by BIR before it goes into effect.

WSB also ruled that:

• Parties can petition WSB to approve a plan that doesn't fit into the pattern established by board rules —but they must be able to prove that their new plan isn't "unstabilizing."

• Companies with plans set up before Jan. 25, 1951, can continue them, regardless of what they provide, and can extend them to (1) additional, smaller employee groups within the same plant; and (2) similar groups of employees of the same company in a different geographical area.

LABOR BRIEFS

New strike deadline, Mar. 24, set by the United Steelworkers (CIO) is being taken seriously in Washington. The union's wage policy committee reported "considerable opposition" to a new delay in strike action. WSB is so concerned that it has asked its special steel panel to report piecemeal on what it found in protracted fact-finding.

•

Welfare fund of United Mine Workers has climbed to $100-million after running low a year ago. Union wants a higher tonnage royalty anyway (BW—Feb.23'52,p30) to increase benefits and to help build hospitals.

•

Travel time amounting to one hour's extra pay a day was awarded employees of a Bronx (N.Y.) firm in a unique arbitration award recently. When fire destroyed Penart Fashion's Manhattan plant, it moved to a Bronx location. That meant a long daily trip for employees. International Ladies Garment Workers (AFL) demanded travel pay and won it from the industry's impartial umpire.

The Pictures—Cover by Dick Wolters. Cal-Pictures—64, 65; Charthe Studio—75, 77; Morris Gordon, Western Electric—106, 107; Mac Gramlich—60 (bot. lt.); Harris & Ewing—28; Int. News—23, 25, 124; Bob Isear—55, 56, 58; Ed Nano—38, 40; Alfonso Preindl—94 (top lt.); Lud. Reiter—94 (top rt., bot. lt., bot. rt.), 95; Charles Rotkin, PFI—140, 141; Sovfoto—137; Dick Wolters—86.

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INTERNATIONAL OUTLOOK

BUSINESS WEEK
MARCH 1, 1952

The Administration hopes to rush a $7-billion to $8-billion foreign aid request to Congress next week. It wants to take advantage of the diplomatic victories of the Lisbon NATO session, speed money to Europe to keep rearmament on the rails.

That's not to say that Lisbon set up a house of cards, ready to blow down with the first ill wind. At Lisbon, NATO evolved into what is potentially the strongest military alliance in history. More than that, it's becoming an association of democratic nations closer in some respects than the British Commonwealth.

But there are pitfalls ahead. And the U. S. has the job of easing the bumps. We're more deeply committed to Europe now than ever before.

•

Lisbon put a good head of steam behind European defense. That's despite the fact that the program is on a new, slower timetable (page 23).

- NATO approved German rearmament within a European army.
- NATO bought the Three Wise Men's 1952 program: 30 combat-ready divisions, 20 reserve divisions, 4,000 warplanes by yearend.
- The Allies agreed to share a $426-million bill for bases and communications.
- Delegates strengthened NATO's administration machinery; Gen. Eisenhower was granted more powers.

•

It took tough bargaining and painful concessions to hammer out these agreements.

West Germany shelved its claims for full NATO membership now and for complete economic sovereignty. It will have a voice in decisions affecting German defense. But its military production will be under the eye of the European army organization.

France gave up its bid for tight controls over German war production. It dropped its insistence on a formal U. S. guarantee against resurgent German militarism.

•

It all adds up to a pretty solid report for Secretary of State Acheson to bring home to Washington. A major goal of the U. S. at Lisbon was to get agreements that would look good to an election-minded Congress pondering the foreign aid bill.

Europeans, too, had a weather eye on Washington—the fear that Congress might not buy influenced their decisions. Said one observer: "The shadow of Capitol Hill loomed larger over Lisbon than the shadow of the Kremlin."

•

A deep cut in U. S. aid would kill chances of reaching the Lisbon goals. As it is, 1952 promises tough sledding.

The economic burden will be critical. Britain and France both face serious financial crises. Delaying defense spending is the simplest way for them to ease the pressure.

Britain's attempt to impose an ambitious arms program on a drum-tight economy has failed. The result is a clogging of British industry in the tooling stage, reducing productivity, delaying the start of mass production.

Churchill's decision to spread the arms program over more than three years should ease the logjam. But the recent emergency moves to stop

the drain on gold and dollar reserves—import cuts, export increases—will boost inflationary pressures within Britain.

•

In France, the economic trouble could bring political upheaval. Lisbon put French Premier Faure in a hot spot.

He's committed now to try to raise taxes 10% to 15% to help pay for more military installations. But the National Assembly finance committee is on record as violently opposing a 10% hike.

Some Paris observers are betting two to one that the Faure government will topple. That would be a hard blow to French financial stability—and to NATO's defense plans.

•

The European army scheme, O.K.'d at Lisbon, will depend a lot on political stability in France and West Germany. Given that, it probably has enough momentum to carry through.

There'll be haggling, though. It will take six to nine months to get the army treaty ratified in the member parliaments.

That will give French and German politicos time to have second thoughts and to think up new conditions on German rearmament.

And all bets would be off if rightist Gen. de Gaulle gets into office in France; or if Socialist Kurt Schumacher is elected in West Germany before rearmament begins there.

•

Meantime, Stalin isn't sitting idly by. There are plans afoot to try to gum up NATO's progress.

From Vienna comes word that the "Iron International," a Communist federation of metalworking unions, has received unlimited funds from Moscow for troublemaking. French Communists were told that the federation's campaign is a "decisive battle" to be won at all costs.

•

Look for more trouble in Africa and the Middle East.

The current calm is deceptive. Moslem nationalism is still smouldering in back alleys everywhere. And European policy towards the Arab world is getting tougher, rather than more conciliatory.

•

The French are steadily tightening their grip on Morocco and Tunisia.

In Morocco, the U. S. is squeezed between native nationalism and French colonialism. Some Frenchmen are waging a tireless war against U. S. business interests there. Paris is doing its best to keep all dealing over Moroccan bases strictly between itself and the U. S.; the Sultan doesn't even get a look-in.

In Tunisia, Washington's hopes that France would give natives more autonomy have been dashed.

•

British policy in Egypt has the planners worried, too.

There's a fear that the British position is becoming increasingly untenable—thanks to supply and manpower problems. Washington thinks that London will have to either expand its grip on Egypt or pull out of the canal entirely—even if no further violence flares.

The best hope is for a quick settlement between London and Cairo. But it's a question of whether the new premier, Aly Maher Pasha, has enough local support to put across a deal acceptable to the West.

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HEAVY INDUSTRY, like this Moscow machinery plant, is being built up fast because . . .

Russia Gears for a Long Cold War

At Lisbon last week the North Atlantic Treaty Organization settled down for a long siege. It decided to put as much stress on preparing for a prolonged cold war with Russia as for a sudden hot war.

The NATO decision was based on a top-level assessment of Russian strategy, covering everything from the realities of the Soviet economy to the nuances of its philosophy. The economic factors weighed heavily. Recent industrial development in the Soviet empire all by itself would almost dictate a Western policy of preparing for the long pull as well as the short.

• **Still Growing**—Present Russian output of aircraft and tanks is rated at least twice the West's. But the Kremlin still is operating a cold-war rather than a hot-war economy. Soviet industry can be expected to continue growing.

A recent survey of the subject by the Economic Commission for Europe (a U.N. body in Geneva) and studies made by U.S. economists show:

• When the Chinese Communists intervened in Korea late in 1950, the Kremlin boosted military spending considerably—enough to provide arms that made possible the present stalemate in Korea, but not enough to put the U.S.S.R. on a war footing.

• Basic industries in Russia are working toward the long-term goals laid down by Stalin right after World War II. Development of heavy industry is being relentlessly pushed despite lagging agricultural and consumer goods production.

• The U.S.S.R. has achieved far quicker economic integration with its East European satellites, and gained far more from it, than Western observers once thought possible. Soon, all Russo-satellite trade may be based exclusively on the ruble, without reference to world prices.

Twice since World War II Soviet defense spending has jumped suddenly. In 1949, after Mao's Communist forces overran China, military spending in the U.S.S.R. went up to 79.2-billion rubles, or 13-billion rubles above 1948. In 1950 the increase was only 3.6-billion rubles. Then, in 1951, came the next big jump—from 82.8-billion rubles to 96.3-billion.

• **$30-Billion?**—There's no way of accurately translating Russia's 1951 military budget into dollars. But, by computing figures back to 1940, American economists think a fair guess for 1951 would be $30-billion, not including atomic development and other hidden items.

It is probably more revealing to compare 1951 military spending with prewar levels. According to ECE calculations, the Soviet Union last year put two-thirds more resources into defense alone than it had put in 1937 into defense plus all investment in the rest of its economy. For several years now, defense has taken more resources than in 1940, when Soviet preparations were going full blast.

There's no doubt about the growing strength of the Soviet industrial base. Here's the record for some basic industries, as compiled by ECE from official Soviet figures:

	1940	*1950*	*1951*
	(Million metric tons)		
Coal and lignite	166.0	260.0	284.0
Steel (crude)	18.3	25.3	31.0
Pig iron	15.0	19.3	22.0
Petroleum	31.0	37.5	43.3
Cement	5.8	10.4	12.2
Electric power (billion kwh.)	48.3	90.3	104.0

Some U.S. economists would scale these figures down a bit—especially for petroleum and steel—but there seems no doubt that significant progress has been made.

For steel, progress apparently was especially rapid in the second half of 1951. Several mills in the Ukraine and the Kuznetz basin got into production ahead of schedule—late last year rather than during the first quarter of 1952. There's evidence that much of the Russian steel plant has been modernized. Output of blooming mills is now 40% to 50% higher than called

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obsolete machines, tools and equipment, no-longer-used jigs and fixtures, worn-out or broken chains, wheels, pulleys, gears, pipe, tanks, drums and abandoned metal structures. Non-ferrous is needed, too!

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for in the original American designs. Steel production in electric furnaces has been highly developed.

• **Aluminum**—Nonferrous metals have been lagging behind the over-all expansion. But in 1951 considerable advances were made. Aluminum production is now up to about 200,000 tons a year (it was 80,000 tons in 1944) and electrolytic copper to about 300,000 tons a year (150,000 in 1944).

On the basis of Soviet figures, ECE estimates that Soviet metalworking industries as a whole increased their 1950 output by 130% of 1940, and then in 1951 added another 21%.

The chemical industry has been making rapid strides. Production of potash and phosphorous pyrite has pushed way up. A former high Soviet official, now in the U.S., says the output of sulfuric acid reached 3-million tons in 1950, as against 1.5-million tons in 1938. Output of synthetic rubber is up, too.

I. Soft Spots

Despite these records, it's hard to accept official Soviet claims that gross industrial production in 1951 was double that in 1940. Of the basic industries, only electric power shows an output more than twice 1940. And 1951 production in the light industries was barely 20% higher than it was in 1940.

• **Labor Output**—It's also safe to discount the Soviet claim that the industrial gains of the past year were achieved by a tremendous increase in the productivity of labor. Western experts think the gains generally resulted more from big additions to the Soviet work force, including the forced migration of workers from Eastern Europe.

One Western estimate is that in 1947 the average output of a Soviet worker was 17% of that of a U.S. worker. Average output had increased in 1951 to no more than 20%, except in steel.

The worst Soviet bottleneck is rail transport. One high U.S. official, recently back from Russia, says that it's hard to believe Soviet production boosts after you've seen their railroads.

Other big weaknesses show up in consumer goods, housing, and agriculture.

• **Light Industry**—In 1950 production of the light industries—textiles, footwear, and household goods—was officially put at only 17% above the 1940 level, although population had risen by at least 5%. The output of leather shoes was identical in the two years—205-million pairs or hardly more than one pair per capita.

Despite boosts in production of building materials, housing lagged behind official targets and far behind needs. True, wartime losses seem to have been made good in the cities. But meantime, the urban population has gone up rapidly, probably by as much as 20%.

Agriculture is the most neglected sector of the Soviet economy. Although it provides the basis for two-thirds to three-quarters of Soviet consumption, 1951 investment in agriculture was very little above 1940.

The ECE reports:

• Gross value of agricultural output rose only about 7% from 1940 to 1950.

• The total sown area in 1951 was 6-million hectares above 1950, but still no larger than in 1940.

• The output of livestock produce in 1950 and 1951 averaged no higher than before World War II and was somewhat smaller on a per capita basis.

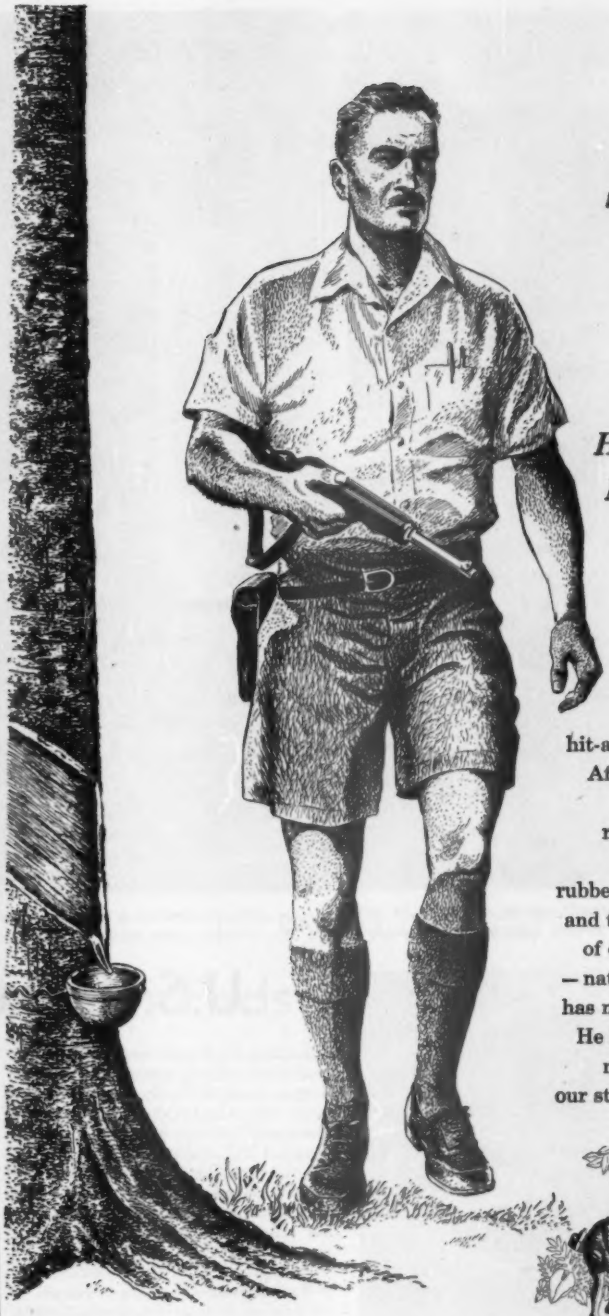
Soviet figures on tractor production show how higher military output in 1951 hurt agriculture. Soviet farms in 1951 got 137,000 tractors (in terms of 15-hp. units), as against 180,000 in 1950 and 150,000 in 1949.

II. Remember the Satellites

Any reckoning of Soviet economic strength must allow for the East European satellites. To some extent, satellite output of consumer goods and even of food products makes up for deficits in the Soviet Union itself.

The entire economic planning of the satellites is by now firmly in Soviet hands. The individual Eastern European Five Year Plans are integrated parts of Soviet plans. Soviet control of all satellite raw materials is absolute. So is control of the 8-million to 9-million tons of steel output. Management and administration, production standards, wage scales, and technology have been adapted to the Soviet pattern.

Here is one important example of integration: Caustic soda and soda ash are bottlenecks of the fast-expanding Soviet chemical industry; only about two-thirds of requirements are available in the Soviet Union itself. Up to 1947 the Soviets ruthlessly dismantled the chemical industry in Eastern Germany; 80% to 90% of synthetic rubber, asbestos, and calcium equipment was sent to the Soviet Union. After the inauguration of Mikoyan's Mutual Assistance pact, Soviet policy changed radically. By 1949 the East German chemical industry, which accounts for almost half of all Soviet Zone industrial production, was back to prewar levels—using equipment delivered from Western Germany and Soviet raw materials. Of its $84-million exports in 1950, half went to the Soviet Union, and by now it makes up completely the Soviet deficit.



The Rubber Planter

Unsung hero of a four-year-old HOT war against Communism in Malaya, maintains an Outpost of Freedom in Southeast Asia

THE STRANGEST WAR in the world is being fought with increasing ferocity in Malaya. Thousands of Red bandits hide in the jungle, make daily hit-and-run attacks on the rubber plantations. After four years, the Red strategy is plain — kill the planters, strike fear into the rubber workers, disrupt rubber production by tree slashing. The aim is to wreck the rubber-dependent economy of strategic Malaya, and to deprive America and other free nations of one of the world's most vital commodities — natural rubber. One of the reasons this plan has not worked is the Malayan rubber grower. He has refused to be licked. He has produced near-record tonnages of natural rubber for our strategic stockpile. He holds a front line in the FIGHT for FREEDOM.

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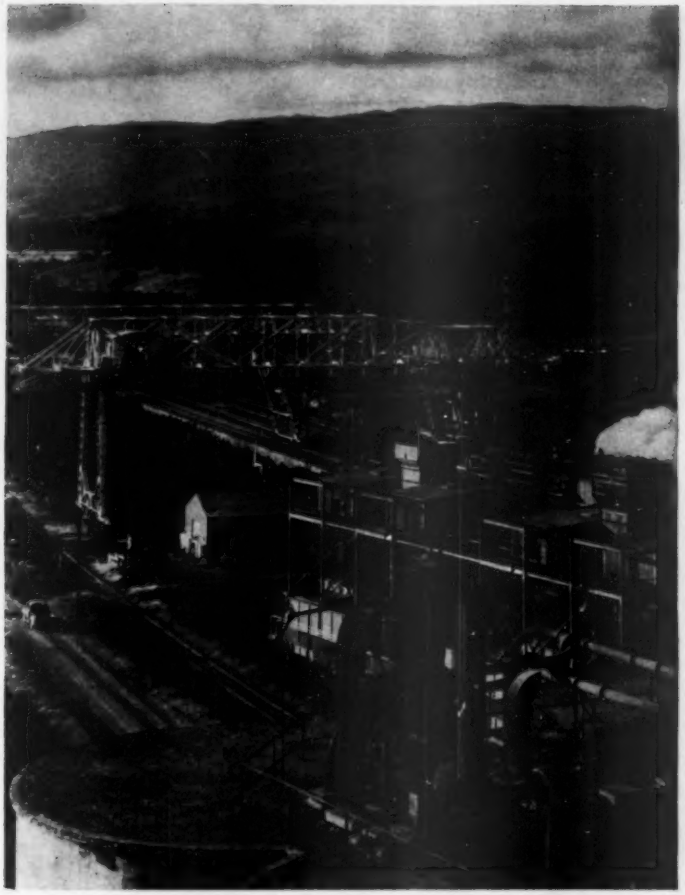
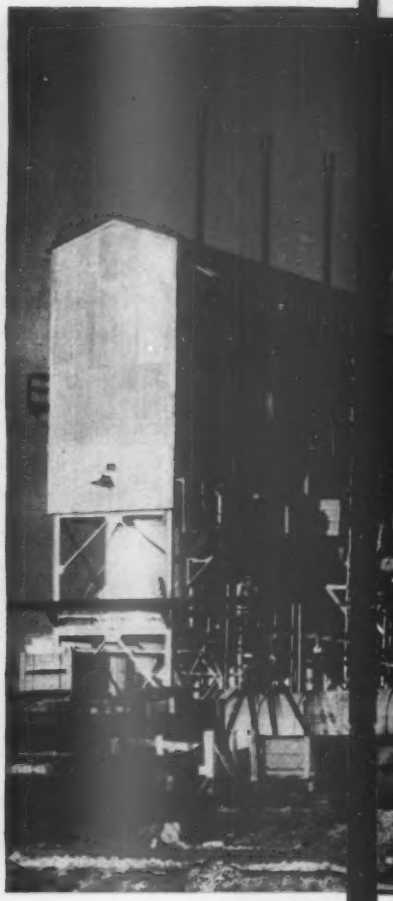
to promote greater understanding in America of its friend, ally, and supplier in Southeast Asia — the Malayan rubber grower. Write for free booklet — "Natural Rubber and You."



NICKEL ORE, mined in Cuban hills (background), arrives at Nicaro by rail. Gantry cranes work ore from stockpile (left) to plant as needed.



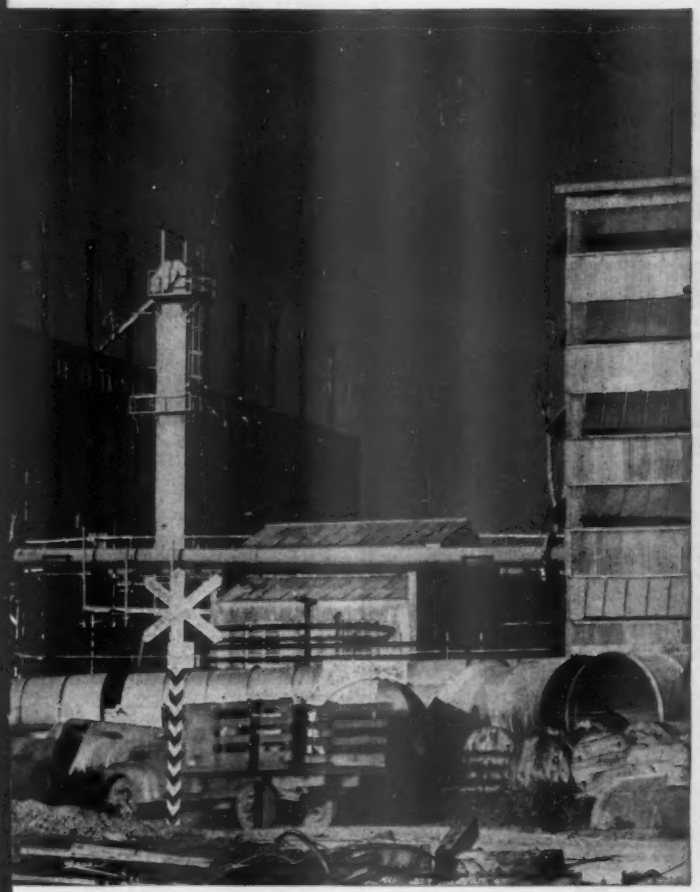
GAS for ore reduction is made from anthracite, comes from these 14 pro-

LEACHING TANKS separate nickel from reduced ore. Later nickel carbonate is precipitated, turned into oxide averaging 76% nickel.

U.S. Nicke

During 20 hectic months in 1942 and 1943, a U.S. government and industry team built the Nicaro nickel plant on a deserted, scrubby-jungle peninsula on the northeast coast of Cuba. Until it shut up shop in 1947, the $33-million government-owned project turned out 63.6-million lb. of the strategic metal, close to 10% of our wartime supply. It made Cuba the second-largest nickel producer in the world.

• **Reawakening**—This week Nicaro is celebrating its first full month back in operation. It has a Number One priority in Washington: It will funnel needed nickel into the stockpile for use in the U.S. armory of jet engines, aviation parts, atomic equipment, bullet



ducers. The gas is blown through furnaces, roasts the finely ground and dried ore. Ore travels by compressed air from storage silos to top hearth of furnaces.

ORE enters furnace through center bell. Flues on the side carry gas.

Orphan Ends Five-Year Sleep

jackets, and the like. By June Nicaro is expected to be in full production, turning out a nickel oxide equivalent of 30-million lb. of metal yearly. That means a big boost for the West's supply. Canada, mainly through the giant International Nickel Co. of Canada, Ltd., produces over 275-million lb. annually; New Caledonia, thanks to some ECA pump priming, is turning out around 12-million lb. Other free world production is merely in dibs and dabs.

Four companies are cooperating to bring Nicaro back to life:

• Nickel Processing Corp., New York, operates the plant and mines under an agreement with the General Services Administration. NPC is a joint venture of N. V. Billiton Maatschappij, of the Netherlands, and National Lead Co., along with some Cuban interests.

• Frederick Snare Corp., New York, has a contract to rehabilitate and modernize Nicaro. It was Snare that built the plant during the war.

• Cuban Nickel Co., a U.S. government corporation, owns the plant, its utilities, and the town of Nicaro.

• Nicaro Nickel Co., a subsidiary of Freeport Sulphur Co., owns ore reserves nearby.

• Former Doings—It was Freeport Sulphur that pioneered Nicaro, ran the mines and the plant until Mar. 31, 1947. The job took fast footwork in scrounging for materials, top-flight diplomacy in Havana and Washington. Also, Nicaro had to sell many engineers on nickel oxide as an alloy—instead of the nickel metal they had been used to using.

Though Nicaro was a high-cost producer built under wartime duress, there was hope it might stay in business postwar. But Freeport Sulphur threw in the sponge in 1947. For one, it couldn't get what it thought were acceptable lease terms from the U.S.; for another, it didn't think that the market outlook for Nicaro's expensive oxide was very rosy. Added trouble came when International Nickel Co. brought out its first nickel oxide—at a price Nicaro would have been hard put to beat.

Korea gave the orphaned plant a new lease on life. In 1950 GSA made a

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survey of the closed-down properties, asked for bids from any outfit that might be interested in operating them. Nickel Processing stepped up for the job; Frederick Snare went to work with $9-million U.S. funds to clean up and modernize the plant.

• **Back to Work**—Nicaro returned to production 60 days ahead of schedule. Clay P. Bedford, now special assistant to the Secretary of Defense (BW—Dec. 22'51,p153), played a big role in the rebirth. He slashed red tape and cut across official channels to get equipment, at one point got the Navy to demothball a 700-man barracks ship and bring it to Nicaro's harbor to house reconstruction and operating crews overflowing from the townsite.

• **Bright Future**—There's hope now that Nicaro will become a permanent part of the world nickel picture. A new pilot plant is building, aimed at boosting production 10% through revised processes and adding recovery of war-essential cobalt. A Navy helicopter has been windmilling the area looking for new ore deposits; results are encouraging enough to lead to talk of further expansion.

Both the U.S. and Nickel Processing Corp. are working on the assumption that Nicaro is here to stay. There have been technical advances in the treatment of Nicaro's special nickel-iron ores that may make the plant more competitive; high demand for nickel-steel alloys shows no sign of dropping off. Byproducts, like cobalt, hold promise. And there's the chance that private interests may someday step in and buy Nicaro—once Washington is assured of its stockpile supply and Nicaro can prove itself in the world market.

BUSINESS ABROAD BRIEFS

Turned down: United Fruit Co.'s final court appeal against attachment of its $25-million Guatemala banana properties (BW—Feb.16'52,p188). Guatemalan labor people are pressing the issue in a claim for back wages. The showdown may come next week.

•

Reichhold Chemicals, Inc., Detroit, has teamed up with Israel investors to manufacture a complete line of synthetic resins there. Financial and operating control will remain in Israel, but Reichhold will supply engineers and technical help. It's Reichhold's 19th foreign manufacturing affiliate (BW—Jan.26'52,p118).

•

Frozen foods from Britain are out to tap the U.S. luxury market. J. Lyons & Co., Ltd., London, is sending fancy strawberries and fish to New York

department and delicacy stores, hopes to sell nationally if housewives buy.

•

Two new export subsidiaries have been set up by Ekco Products Co., Chicago housewares manufacturer. Ekco International will sell in Europe, Ekco Americas will sell in the Western Hemisphere. First-year sales are expected to hit $2-million, says Ekco.

Businessman for Rome...

. . . Old Hand for Paris

There will be two new faces in key diplomatic slots in Western Europe. Ellsworth Bunker (top), after a year as Ambassador to Argentina, has been nominated to take over the U. S. embassy in Rome. Before Buenos Aires, he had been president and board chairman of National Sugar Refining Co. Bunker will step into the shoes of an able career diplomat, James C. Dunn (bottom), who moves on to Paris. Dunn has been mission chief in Italy since July, 1946, boasts 33 years in the U. S. foreign service. In Paris, he'll replace David K. E. Bruce, who is coming back to Washington as Under Secretary of State.

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THE TREND

Lisbon: Chance for a New Era in Europe

A law of physics states that to every action there is an equal and opposite reaction.

Politics is no such precise matter, but the Kremlin must be wondering a bit about it by now. When Stalin after the war revived his full-scale conspiracy against the free world, he set in motion powerful counteracting forces that are producing historic consequences.

One such took form at Lisbon, Portugal, the other day when the North Atlantic Treaty Council unanimously endorsed the European Army composed of men from France, Italy, Belgium, the Netherlands, Luxembourg, and the West German Federal Republic.

This is an event of potentially immense meaning. Its immediate significance is that the European Army provides, as General Eisenhower has said, the only way to bring Germany back into the Western fold and as a contributor to its defense.

To do that to the satisfaction of Germany's former enemies, especially the French, is a task that only tremendous effort, goodwill, and the full support of the United States can achieve. The action of the NATO council, itself but a blueprint, was possible only because certain critical decisions were reached earlier in London by representatives of Great Britain, France, the U.S., and Germany. Here are two of them:

• NATO and the European Army will consult regularly on "common problems." This dipomatic device is designed to satisfy France, which insists that Germany prove her reliability before she is granted NATO membership, and to meet Bonn's objection that, without a voice in the use of her troops, she wouldn't go along.

• The four foreign ministers reached agreement that weapons production by the six member nations would be under the control of the European Army organization. This would subject German war industries to the same control as those of the other five nations. It provides a means of keeping certain heavy military items from being produced in Germany. The arrangement helps satisfy France's desire for a guarantee against the consequences of a German bolt from the new group.

Such a commitment, as well as adherence to the European Army itself, would be written into the contractual agreement with Germany ending the Allied occupation. Any bolting of the European Army then would in effect break the contractual agreement with Britain and the U.S., as well as France, and would in theory, at least, reinvoke the occupation.

These complex agreements seem like diplomacy-as-usual to many Americans. But they are complex because the problem is complex. It is nothing less than getting Europe's two traditional enemies—France and Germany—to live together in peace.

It would be a tragic mistake, of course, to think that the London decisions and the NATO action in Lisbon have created the European Army. Stubborn financial and security control problems must be adjusted. French and German parliaments must ratify the treaty, which the experts hope to have ready in six weeks. Paris and Bonn could balk. Miracles like this aren't wrought easily. But hopes, and chances, are that by yearend the European Army will be launched.

This is a project in which American interest must continue. It is a key step forward in furthering a major goal of American foreign policy: a united Europe. We are succeeding in our efforts to help Europe fight down the threat of Communist envelopment. In the process we must lose no chance to help Europe unite.

If progress on revolutionary projects like the European Army and the Schuman Plan lags, we may well find present European leaders give way to men like de Gaulle in France, Schumacher in Germany, Bevan in Britain. That would mean a resurgence of nationalism, a throwback to the failure-scarred past, an atmosphere in which Stalin could make deals.

Congress should see in the emerging European Army project good reason for believing that further foreign aid to our Western allies makes sense and offers hope of return.

Economy Starts at Home

The Denver Chamber of Commerce has decided that economy in federal spending must start where they live. In a wise burst of grass-roots patriotism, they have declared themselves out of the pork-barrel business. As long as this defense period lasts, they will not ask federal money for local projects or help others get it.

These Colorado businessmen have hit at a political habit as irresponsible as it is old—to demand economy in public while making sure in private that appropriations for the home town go through.

The result is a ceaseless welling-up of demands on the local level that make their way into the national budget. The budget as it comes out seems to bear little relation to the items that went in. This makes it easy to forget that the total is, after all, the sum of the parts and that if each part were cut in two the budget would be only half as big.

The Denver Chamber of Commerce resolution is a good one. We also like its decision to stick by its guns no matter what other Chambers say "because our times require a definite stand on what is right and what is wrong. This we believe to be right, and will stand on it." This sound conclusion reminds us of the old saying that a real leader never looks back to see if he's being followed.

Why shoot birds... when there's b'ar around?

The few pennies you may save on initial cost for a lubricant are really *small game.* The *big savings*—such as reduced maintenance costs—come when you use Correct Lubrication!

For example...one plant, in the year following installation of a program of *Socony-Vacuum Correct Lubrication,* saved $66,000 on machine maintenance alone! In this same period, total cost of lubricants—including cutting oils—was only $50,000!

In addition to *maintenance* savings, Correct Lubrication also helps you achieve more continuous production, less power loss and lower over-all lubrication costs.

See what Correct Lubrication can do in *your* plant, mill, or mine. Call your Socony-Vacuum representative today!

SOCONY-VACUUM

Correct Lubrication

WORLD'S GREATEST LUBRICATION KNOWLEDGE AND ENGINEERING SERVICE

SOCONY-VACUUM OIL COMPANY, INC., and Affiliates: MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

The only way to see more of the Rockies is to climb 'em

YOU TRAVEL through the heart of the Canadian Rockies when you ride *The Continental Limited* — crack Canadian National "name train". The snow-capped peaks are hazy on the horizon at first — then suddenly towering all around you.

WHEN YOU TAKE A springtime trip in the Rockies on *The Continental Limited* you sight-see 6 of Canada's 10 picturesque provinces. And you can go from Montreal to the Pacific without changing cars, without leaving your front-row seat.

MOUNTAIN AIR BUILDS APPETITES! And roller bearings on the train's axles let you enjoy Canadian National's tasty meals in smooth-rolling comfort. They're one of the big railroad advances that made fast "name train" schedules possible.

Now look at the next great step in railroading

THE NEXT GREAT STEP in railroading is "Roller Freight"—freight trains equipped with Timken® roller bearings. Already improved by mechanized handling and better terminals, freight service will be *revolutionized* when "Roller Freight" arrives!

"ROLLER FREIGHT" CAN BE a big drawing card for railroads in bidding for tomorrow's freight business. Shippers like it because Timken bearings will permit perishables and "rush" shipments to arrive on-time and in better condition.

LUBE BILLS WILL SHRINK with "Roller Freight" because Timken bearings can cut lubricant costs up to 89%. "Hot boxes" — no. 1 cause of freight train delays — are eliminated. 90% fewer man-hours are needed for terminal inspection.

ONE GREAT RAILROAD already has put a "Roller Freight" livestock train into service. And *what* results! Running time has been chopped in half. Shippers report that the cattle arrive in better condition. And the railroad's livestock business has zoomed 30% in two years!

THE COST IS DOWN! Complete assemblies of cartridge journal box and Timken bearings for freight cars cost 20% less than applications of six years ago. And cost analyses show the added investment over friction bearings can be saved in as little as 39 months.

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THE TIMKEN TAPERED ROLLER ▭ BEARING TAKES RADIAL ◊ AND THRUST ⊣◊⊢ LOADS OR ANY COMBINATION ✳

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Watch the railroads Go... on **TIMKEN** *Tapered Roller Bearings*

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